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ABSTRACT

This report contains a brief summary of the evaluation of the Summer At-Home Reading Program, which was designed to improve the reading skills of low achieving elementary school children and to involve parents actively in their children's reading instruction. Among the positive findings reported for the program are that parents who participated were generally enthusiastic about the program and wanted to see it continued, were satisfied with the training they received, and did not report any major problems in finding assistance when necessary. Among the negative findings reported are: the program had no discernable impact on reading achievement as measured by standardized tests, many students were assigned materials that were either above or below their current level of reading achievement, and first grade students were "overselected" for the program. The major portion of the report consists of appendixes that contain data gathering forms, tests, and other materials used in the program evaluation. (FL)

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INTERIM EVALUATION REPORT:

1980 Summer At-Home Reading Program

January, 1981

Evaluator:
David Doss, Ph.D.

Senior Evaluator:
Glynn Ligon, Ph.D.

Evaluation Intern:
Dave Welsh

Evaluation Assistants:
Wanda Washington
Lauren Moede
Marie Mulkey

Data Analyst:
Carol Pankratz:

Secretary:
Linda Shaw

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Approved:

Freda M Holley
Freda M. Holley, Ph.D.
Director, Research and Evaluation

Publication No. 80.61

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FINAL REPORT

Project Title: 1980 Summer At-Home Reading Program

Contact Person: David Welsh, David Doss

Major Positive Findings:

1. The parents who participated in the program were generally very enthusiastic about it and would like to see it or similar programs continued.
2. Most participating parents were satisfied with the training they received from Title I staff.
3. Parents did not report any major problems in finding assistance when necessary.

Major Findings Requiring Action:

1. At-Home participants did not make larger achievement gains than their matched controls.
2. The program's participation objective was not met.
3. A large number of participants appeared to be assigned At-Home session levels which were either above or below their current level of reading achievement.
4. First-grade students may have been over-selected for participation in the program, i.e., on the whole, first graders were not as far behind their peers as were students at other grades.

Program Description:

The At-Home Program is designed to improve the reading skills of low-achieving elementary school children. Participants receive one of eight different reading kits (called "sessions") designed to correspond to their current reading ability. Sessions range in difficulty from prekindergarten to sixth-grade reading levels. Each session consists of 10 lessons which are to be completed at home over a ten-week period. The lower level sessions (A, A/B, B, C, and D) provide opportunities for parents to play an active role in their child's reading instruction; the higher level sessions (X, Y, and Z) allow for more independent work on the part of the child.

Completed lessons are sent to the At-Home headquarters in Maryland, where they are corrected by certified teachers and then returned to the students. Additional materials, designed for enrichment or remediation, may be included with the corrected lessons.

All participants receive a certificate; those who complete all ten lessons also receive an At-Home T-shirt. A special banquet, held in mid-August, honored those students whose performance in the program was outstanding.

The At-Home Program has been used previously during the summers of 1977, 1978, and 1979. In addition, Title I used the program as an instructional support component during the 1977-78 school year. Based on consistently strong support for the program from participating parents, principals, and Title I teachers, a decision was made to continue the program during the summer of 1980. The program was implemented on the following Title I elementary campuses: Allison, Brentwood, Brown, Dawson, Norman, Oak Springs, Pecan Springs, Pleasant Hill, Ridgetop, Rosedale, Rosewood, and Sims.

Families with a child eligible for Title I services, and whom the school's Title I or Title I Migrant reading teacher considered likely to complete the program, were invited to participate. Because approximately 100 kits were left after those families given the opportunity to participate actually registered, the program coordinator offered enrollment in a second ten-week session to a group of participating families. This second session was held subsequent to the first, from August 11 to September 28, 1980.

Evaluation Summary:

The evaluation was conceptualized in the original design (ORE publication number 79.54) as focusing on three general issues. The first issue involved the degree of participation on the part of the involved families, as well as a general description of the way in which participating families used the program materials. A second general issue centered on the reading achievement gains of At-Home students relative to a group of control students. The third general area of interest was whether achievement gains could be related to certain implementation characteristics.

What follows is a brief summary of the evaluation findings. These findings have been organized around the major question to which they are relevant. More complete information about the procedures used to collect and analyze these data can be found in the technical appendices to this report.

HOW DID PARENTS FEEL ABOUT THE PROGRAM?

Participating parents' feelings about the At-Home Program were assessed with a questionnaire developed by ORE (see Appendix B). Parents responded to several multiple-choice items which were designed to tap various aspects of the program itself as well as its administration. Respondents were also invited to write additional comments on the back of the questionnaire.

Responses to the multiple-choice portion of the questionnaire were quite consistent. Most parents were satisfied with the parent training they received, and very few reported any problems in finding assistance when necessary.

The majority of the parents thought the lesson instructions were easy to understand, although levels A, B, and D seemed to be somewhat harder for parents to understand than the other levels. Most parents reported that their children enjoyed doing the lessons.

Responses to the open-ended item were also quite positive. That is, most of the respondents indicated they enjoyed the program and many expressed a wish for its continuation in the future. Different parents tended to emphasize different aspects of the program as particularly important to them For example, several stated they liked the opportunity to interact with their child and that the experience gave them a better appreciation of the child's strengths and weaknesses. Several thought the program was beneficial in terms of maintaining the child's academic skills during the summer vacation, and many noted that their children enjoyed working on the lessons.

However, parents' written comments were not uniformly positive. A few respondents thought the lessons were too easy for their child, while an equal number thought the lessons were too hard. Several parents wanted to see math lessons in addition to the reading lessons. Two parents said they were unable to get help when they needed it, and one wished that the lessons took longer than 15-20 minutes to complete. One parent was disappointed that her child received the same level the child worked on last summer. Three parents felt the program started too early and that it should not start before school ends. Four parents commented on problems they had communicating with program headquarters in Maryland (e.g., being told that only seven lessons were received when all ten had been sent).

To summarize, the parents who participated in the program were generally very enthusiastic about it, many of them expressing a desire for its continuation.

HOW CAN WE DESCRIBE PARTICIPATION IN THE PROGRAM?

Information relevant to this question was derived from two sources. One source was the Parent Questionnaire (Appendix B), which included questions about how the family worked on the lessons. The second source of information was the student profiles maintained by At-Home headquarters in Maryland (Appendix C). These profiles included the number of lessons completed and mistakes made by each participant.

Responses to the Parent Questionnaire indicated that the mother was most frequently the family member who helped the child. Most parents reported that their children did not need a lot of help in completing the lessons, and most lessons were completed in one day. It was initially hoped that information about the way the family worked on the lessons could be related to subsequent achievement gains. Unfortunately, the lack of variability in parents' responses meant that such relationships could not be meaningfully evaluated.

Figure 1 displays the average number of completed lessons and the average number of errors per completed lesson by session level. According to these data (supplied by program headquarters in Maryland), the total average number of completed lessons was 7.7. This represents a lesson completion rate of 77%, somewhat lower than the program's stated participation objective ("participants will complete 80% of the At-Home lessons").

Figure 1 also suggests that as the difficulty level of the sessions increases, the number of completed lessons tends to decrease and the number of errors tends to increase.

Session Level	Number of Participants	Average Number of Completed Lessons	Average Number of Errors[a]
A	48	7.98	.50
A/B	68	7.93	.49
B	74	7.74	.59
C	35	7.71	1.04
D	38	7.24	1.04
X	27	8.26	1.57
Y	14	6.14	2.83
Z	3	5.00	1.67
TOTAL	307	7.70	.86

[a] Per completed lesson.

Figure 1. MEAN NUMBER OF COMPLETED LESSONS AND ERRORS PER COMPLETED LESSON BY AT-HOME SESSION LEVEL. First ten-week session.

Another issue of interest with respect to program participation was the extent to which students were assigned session levels which corresponded to their reading ability as assessed by the Iowa Tests of Basic Skills (ITBS).

Appropriateness		AT-Home Session Level A/B	B	C	D	X-Z
Too Hard	n	-	3	10	12	22
	%	-	3	29	32	50
Appropriate	n	15	43	17	13	19
	%	23	61	49	34	43
Too Easy	n	49	24	8	13	3
	%	77	34	22	34	7

Figure 2. APPROPRIATENESS OF MATH BETWEEN SESSION LEVEL AND ENTERING ACHIEVEMENT LEVEL. Percents refer to column percents.

Figure 2 displays the results of a classification of participants as appropriately or inappropriately assigned to specific session levels on the basis of spring, 1980, ITBS reading scores. Inspection of this figure reveals a high proportion of level A/B participants for whom that level was apparently too easy, as well as a large number of levels X-Z participants for whom those levels were apparently too difficult.

To summarize, the typical family's participation in the At-Home Program may be broadly described as a mother working with her child on a brief lesson, which is completed in one sitting and with which the student seems to need little help. If the student is working on one of the X-Z levels, he will possibly complete fewer lessons and make more errors than if he is working on one of the other levels. A student assigned an X-Z level may be working with material which is too difficult; a student assigned the A/B level is probably working on material with a difficulty level below her reading ability.

WAS READING ACHIEVEMENT INFLUENCED BY PARTICIPATION IN THE PROGRAM?

This question was of major importance in the program evaluation. Consequently, much effort was directed toward selecting a carefully matched group of comparison students, administering and scoring the posttests, and analyzing the resulting data. The details of this effort are described in full in Appendices D and E.

The Metropolitan Readiness Tests was used as the posttest for kindergarten participants and controls. Figure 3 shows that there was no measurable effect of the program at the kindergarten level. Figures 4 through 6 show the results of the analyses for grades 1-6 which tested for equal gains between At-Home and control students on the Word Analysis, Vocabulary, and Reading Comprehension subscales of the ITBS. These figures reveal no significant effect of At-Home participation in terms of ITBS grade equivalent scores.

Additional analyses, which looked for program effects in terms of specific skills rather than overall grade equivalents, also yielded negative results. Moreover, achievement gains were not related to the number of lessons completed, even when the effects of an additional ten lessons were evaluated. Nor did students who had participated in the program in previous years make larger gains than those participating for the first time.

One interesting observation drawn from Figures 4-6 is that the program's first graders had, on all three tests, average achievement levels virtually identical to the achievement levels of the second graders. This suggests that the first graders may have been "over-selected" for program participation. That is, they may have been enrolled in the program less selectively than the other students.

To summarize, the program apparently had no discernible impact on reading achievement as measured by standardized test scores.

Measures	N	Mean Raw Score		Equal Slopes			Equal Gains		
		Pretest[a]	Posttest	df	F	p	df	F	p
Auditory Skills									
At-Home	24	37.88	17.42	1,44	<1	.81	1,45	<1	.84
Control	24	38.50	17.42						
Visual Skills									
At-Home	24	37.88	15.83	1,44	1.07	.31	1,45	<1	.45
Control	24	38.50	17.46						
Language Arts Skills									
At-Home	24	37.88	10.67		b		1,45	<1	.35
Control	24	38.50	10.75						
Prereading Composite									
At-Home	24	37.88	44.46	1,44	<1	.73	1,45	<1	.92
Control	24	38.50	45.63						

[a] Pretest is total raw score on the Boehm Test of Basic Concepts (Spring, 1980, administration).

[b] The amount of variance accounted for by the two models was virtually identical. Therefore, this test could not be meaningfully evaluated.

Figure 3. COMPARISON OF GAINS MADE BY AT-HOME AND CONTROL STUDENTS ON MRT MEASURES.

		Mean Grade Equiv.		Equal Slopes			Equal Gains		
Groups	N	Pretest	Posttest	df	F	p	df	F	p
Grade 1									
At-Home	42	1.71	1.96	1,80	<1	.53	1,81	1.84	.18
Control	42	1.79	1.82						
Grade 2									
At-Home	21	1.70	1.75	1,38	<1	.80	1,39	1.05	.31
Control	21	1.85	2.02						

Figure 4. COMPARISON BY GRADE OF WORD ANALYSIS GAINS MADE BY AT-HOME AND CONTROL STUDENTS. Ten-week participants only.

		Mean Grade Equiv.		Equal Slopes			Equal Gains		
Groups	N	Pretest	Posttest	df	F	p	df	F	p
Grade 1									
At-Home	41	1.68	1.99	1,78	<1	.70	1,79	<1	.69
Control	41	1.60	1.89						
Grade 2									
At-Home	21	1.50	1.75	1,38	1.65	.20	1,39	<1	.44
Control	21	1.58	2.00						
Grade 3									
At-Home	14	2.58	2.71	1,24	1.07	.31	1,25	3.02	.09
Control	14	2.55	3.08						
Grade 4									
At-Home	17	3.64	3.64	1,30	1.67	.20	1,31	3.21	.08
Control	17	3.70	4.05						
Grade 5									
At-Home	21	4,48	4.83	1,38	<1	.60	1,39	<1	.37
Control	21	4.43	4.99						

Figure 5. COMPARISON BY GRADE OF VOCABULARY GAINS MADE BY AT-HOME AND CONTROL STUDENTS. Ten-week participants only.

		Mean Grade Equiv.		Equal Slopes			Equal Gains		
Groups	N	Pretest	Posttest	df	F	p	df	F	p
Grade 1									
At-Home	40	1.52	1.95	1,76	2.96	.09	1,77	3.01	.08
Control	40	1.67	1.88						
Grade 2									
At-Home	21	1.78	2.00	1,38	1.95	.17	1,39	<1	.78
Control	21	1.73	1.93						
Grade 3									
At-Home	14	2.81	2.73	1,24	<1	.64	1,25	5.02	.03
Control	14	2.79	3.16						
rade 4									
At-Home	17	3.49	3.86	1,30	2.65	.11	1,31	<1	.87
Control	17	3.51	3.85						
rade 5									
At-Home	21	4.31	4.46		a		1,39	<1	.90
Control	21	4.52	4.59						

The amount of variance accounted for by the two models was virtually identical. Therefore, this test could not be meaningfully evaluated.

Figure 6. COMPARISON BY GRADE OF READING COMPREHENSION GAINS MADE BY AT-HOME AND CONTROL STUDENTS. Ten-week participants only.

Discussion and Recommendations:

ORE has done outcome evaluations of Title I and Migrant summer school programs for several years. The results have consistently failed to yield evidence of an impact of these programs on achievement scores. Moreover, these programs have been much more extensive in scope and duration than the At-Home Reading Program. For example, a summer school might meet all morning five days a week for six weeks and provide about 90 hours of instruction. Therefore, the failure of the present evaluation to detect achievement effects in a program providing 10-20 hours of instruction is not surprising.

However, the failure of the program to meet its achievement objective should not overshadow the high degree of enthusiasm on the part of participating families. Most of the parents seemed genuinely excited about having an opportunity to become actively involved in their children's schooling, and many appeared receptive to future efforts along these lines.

The recent work by Irving Lazar and Richard Darlington (Lazar and Darlington, 1978) may have some relevance to this evaluation. Lazar and Darlington did a follow-up study of former participants in preschool education programs. They found that the programs had a positive long-term impact on the students when compared with nonparticipants. Interestingly enough, however, they found that the impact was not related to such program characteristics as the child's age upon entry into the program, the length of the program (in months or hours per year), the degree of parental participation, or a number of other variables. In a presentation in Austin, Lazar suggested that somehow the effects the programs had on parents may have been the factor responsible for the positive outcomes. The parents may have become more involved in the education of their children than they would have otherwise. There is some evidence from the study that they had higher expectations for their children than did the parents of nonparticipants.

In reading the written comments added by the parents of At-Home participants, it seems that many parents probably liked the program because

a. it gave them the school's permission to work with their children, and
b. it provided them with specific activities to do with them.

It is possible that as a result of participation in the program, At-Home parents may feel freer and more confident about monitoring the educational progress of their children. Such changes in parental attitude could have a long-range payoff for the program. In order to test that possibility, 1980 At-Home participants and controls will be followed through the 1980-81 and 1981-82 school years to see if such long-term benefits can be found.

Based on the findings presented in this report, the following recommendations are made:

- If reading achievement gains are an expected outcome of this program, the number of lessons per week should be increased. However, five lessons a week for 12 weeks would only provide 60 hours of instruction. This amount might not be sufficient to improve achievement.

- Future programs of this nature should closely examine the way in which participants are given materials of varying difficulty levels, in order to produce a closer match between those materials and participants' abilities.

- Parents seem to enjoy this kind of involvement in their children's education and may be responsive to more extensive efforts along these lines (e.g., increasing the length and/or number of lessons).

- It might be desirable to incorporate the use of parental involvement activities such as the At-Home Reading Program into the regular school curriculum (e.g., structured homework assignments designed to involve the student's parents).

- Future evaluations of this type of program should include, if possible, outcome measures other than strictly academic ones (e.g., degree and type of parental involvement in the school during and following program participation).

Reference

Lazar, I and Darlington R. B. Summary: Lasting effects after preschool. Denver: Education Commission of the states, 1978.

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1980 Summer At-Home Reading Program

Appendix A

AT-HOME OBSERVATION FORM

Instrument Description: At-Home Observation Form

Brief description of the instrument:

A three-page form used to guide home observations. The form lists variables to watch for during the observation, questions to ask the parent(s) following the observation, and contains spaces for describing the room arrangement, sequence of events, etc.

To whom was the instrument administered?

Teachers at several of the project schools suggested names of families who would be willing to allow an observer into their homes. Phone contacts resulted in five families who agreed to the observations.

How many times was the instrument administered?

Six times (one family had two children observed).

When was the instrument administered?

June 19, 20, 27, and July 1, 1980.

Who administered the instrument?

An observer hired by ORE specifically for this purpose.

What training did the administrator have?

General training in observation practices.

Was the instrument administered under standardized conditions?

No.

Were there problems with the instrument or the adminstration that might affect the validity of the results?

The families who were willing to allow observations may not have been representative of the entire group of participating families.

Who developed the instrument?

An evaluation intern, with the consultative assistance of the Title I Migrant evaluator.

What reliability and validity data are available for the instrument?

None.

Are there norm data available for interpreting the results?

No.

AT-HOME OBSERVATION FORM

Purpose

The At-Home Observation Form provided information used in the development of the Parent Questionnaire. As such, it was not directly related to any decision or evaluation questions. It was hoped that observations of parents working with their children at home would result in the isolation of several dimensions which could differentiate familes in terms of how they used the At-Home materials. The form is reproduced in Attachment A-1.

Procedure

The Title I reading teachers at several of the participating schools were asked to suggest families who might be willing to allow an observer into their homes while the family conducted an At-Home lesson. Working from this list, the observer contacted families by phone and arranged appointments.

Prior to the observations, the families were told to simply conduct the lesson as they normally would. Following the lesson, the observer asked them the questions found on page three of the form. After each observation, the observer returned to ORE, where she was debriefed by several members of the evaluation staff.

Results

Six observations (in five different families) were conducted. Three of the observations were of mothers working with daughters; one involved a mother and son; two involved older sisters helping younger sisters. One observation was a level X lesson; three were level D lessons; two were level B lessons.

For the most part, the parents seemed to have little trouble using the materials, although one mother did say that sometimes she wished the instructions accompanying the lessons were easier to understand. This mother reported going to a neighbor to get clarification on one set of instructions. Most of the children moved through their lessons quite rapidly and with little apparent difficulty, although one child did seem to have some trouble using a dictionary

There was some variability in terms of the amount of parental involvement in the lesson. In fact, one mother simply helped her child get the materials ready, and then left the room for the duration of the lesson. This was the same child who had trouble using the dictionary (the child was working on level X). This mother was the only one to give a negative evaluation of the program, claiming that she was surprised by the fact that it was a correspondence course and also stating that she could not see the usefulness of the lessons themselves. However, the observer felt that these comments were largely a function of this mother's general negative attitude (e.g., the mother also criticized desegregation, Title I regulations, her child's motivational level, etc.).

With the one exception described above, the mothers were uniformly positive about the program. One stated that the time spent working with her daughter was a special time for them both. Several indicated an interest in additional lessons, and one felt that the program had made a definite improvement in her daughter's reading ability. Two mothers felt the lessons may have been a little too easy for their daughters (one of these tried to get a higher level for her daughter, but was told by the teacher she contacted that it was too late to change). Two parents commented on the slowness with which they received corrected lessons from Maryland.

AT-HOME OBSERVATION

FAMILY: ______________________ DATE: ______________

CHILD'S NAME: ______________ LESSON STARTED: ______

CHILD'S BIRTHDATE: __________ LESSON ENDED: ______

CHILD'S LAST GRADE: _________ LESSON NUMBER: ______

I. Describe the general setting in which the lesson was conducted. Include the number of people present, the room in which the lesson was held, which parent(s) helped, any distractions or interruptions, etc.

II. Draw a diagram representing the relative positions of all the people in the room (including yourself).

III. While watching the lesson, try to keep in mind the following questions, and try to answer each one.

a. What was the general pace of the lesson (slow, fast, moderate?)

b. Did the parents seem to have any trouble using the materials?

c. Did the parents and child seem to enjoy the lesson?

d. Did the parents seem confident or hesitant in working with materials?

e. Did the lesson seem too easy, too difficult, or about right for the child's ability?

f. Did the parents discuss the lesson with the child or move through it with little discussion?

g. To what extent was the parent active or passive during the lesson?

h. To what extent did the parents praise and/or criticize their child's efforts?

IV. Describe the general sequence of events during the lesson. Include any additional observations not covered above.

Attachment A-1
(Page 1 of 2)

FAMILY: ______________________ observation — page 3

V. After the lesson is completed, tell the parent(s) you are interested in what they think of the program so far. Point out that their answers will be kept confidential. In the course of an informal conversation, try to find out their opinions on the following subjects.

(Note: to keep this as casual as possible, wait to record responses until you are out in the car)

a. How and why did they become involved in the program?

b. How often do they usually have a lesson during the week?

c. Do they review material between actual lessons?

d. Do they feel their child is on the right level (i.e., do they think the materials are too hard or too easy)?

e. Do they know who to call if they have any problems?

f. Would they be interested in additional lessons after they've finished these?

g. What things about the program do they especially like?

h. What things about the program would they change if they could?

Record any additional comments made by the parent(s) or child.

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Appendix B

AT-HOME PARENT QUESTIONNAIRE

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Instrument Description: At-Home Parent Questionnaire

Brief description of the instrument:

The questionnaire is a one-page form containing statements about various aspects of the At-Home Reading Program. Parents indicate the statements with which they agree by filling in the appropriate circles. The questionnaire is generated by computer and contains the child's name in several of the statements.

To whom was the instrument administered?

The questionnaire was mailed to the parents of those students who had been verified by the At-Home Office in Maryland as active participants.

How many times was the instrument administered?

Once. A reminder was sent to parents who had failed to respond to the first mailing.

When was the instrument administered?

The first mailing took place on July 23. The reminder was mailed on August 7.

Who administered the instrument?

Not applicable.

What training did the administrator have?

Not applicable.

Was the instrument administered under standardized conditions?

No.

Were there problems with the instrument or the administration that might affect the validity of the results?

Parents who returned the questionnaire may not be representative of the entire group, although the high return rate (71%) argues against this.

Who developed the instrument?

An evaluation intern, working under the supervision of the Title I and Title I Migrant evaluators.

What reliability and validity data are available for the instrument?

None.

Are there norm data available for interpreting the results?

No.

AT-HOME PARENT QUESTIONNAIRE

Purpose

The Parent Questionnaire was designed to provide data on several aspects of At-Home participation. This information served as a description, in very general terms, of how participating parents and children used the At-Home materials. In addition, the following evaluation question was explored:

> Evaluation Question 1-6: Was there any relationship between the way in which participating families used the program materials and subsequent achievement gains?

The Parent Questionnaire was also used to assess the parents' feelings about the program, and thereby provide information relevant to the following evaluation question:

> Evaluation Question 1-8: Did participating parents judge the program to be of any benefit?

Attachment B-1 displays the Parent Questionnaire.

Procedure

Using input from the project director and several Title I reading supervisors, as well as information gathered from the home observations (see Appendix A in this report), a list of potential questions was generated. From this initial list, the Title I evaluator, the Title I Migrant evaluator, and the At-Home evaluation intern selected those questions which appeared most important. Because keeping the questionnaire as short as possible was a high priority, questions reflecting similar program dimensions (e.g., AISD's administration of the program) were condensed into single items. Thus, parents could mark more than one response to most of the items.

Once the final format was determined, a computer generated the actual questionnaires. Each questionnaire contained the child's full name at the top, and the child's first name throughout the body of the questionnaire. Parents received one questionnaire for each of their children who participated in the program.

An accompanying letter (see Attachment B-1) was duplicated on AISD stationery. In keeping with the "personalized" style of the questionnaire itself, each cover letter was hand-signed in blue ink. The questionnaires, along with cover letters and stamped, self-addressed return envelopes, were mailed on July 23, 1980. Questionnaires were sent only to those families whose children had been verified as active participants by the At-Home headquarters in Maryland. One memo was mailed for each child in the program; therefore families with more than one participant received multiple questionnaires.

A reminder letter (see Attachment B-2) was prepared for those parents who had not responded to the initial mailing. This letter was sent on August 7. Of the 309 questionnaires sent, 218 were returned (a return rate of 71%).

Results

Responses to Multiple-Choice Items

Figures B-1 to B-11 display the number of respondents who endorsed the various response alternatives. As noted above, parents completed one questionnaire for each of their children who participated in the program, and several families had more than one child in the program. Therefore, "number of respondents" refers to the number of questionnaires received and *not* the number of families surveyed. The actual output (from Program FREQUENCIES of the SPSS package) is included as Attachment B-4.

Inspection of these figures reveals a large degree of consistency in parents' responses. For example, most were satisfied with the parent training and felt the lesson instructions were easy to understand. Most felt their children enjoyed the lessons and did not need a lot of help doing them. The mother was usually the child's principal helper, and most families completed lessons in one sitting. Only four of 218 respondents reported they had trouble getting help from District personnel when they needed it, and only 5% reported they had trouble getting corrected lessons back from Maryland.

It was initially hoped that the parent questionnaire would supply information relevant to the following evaluation question:

Evaluation Question 1-6: Was there any relationship between the way in which participating families used the program materials and subsequent achievement gains?

Unfortunately, the lack of variability in questionnaire responses meant that this question could not be meaningfully answered.

However, the relationship between certain questionnaire responses and both At-Home session level and grade level *were* analyzed. Figures B-12 to B-17 display the results of these analyses. Because the four Early Childhood participants were not included, the total sample size for these analyses is smaller than the sample in Figures B-1 to B-11. Inspection of the chi-square values reveals that parental understanding of lesson instructions (Figure B-12) and the expression of a desire for more lessons (Figure B-16) were *both* significantly related to At-Home session level. More specifically, levels A, B, and D seem to be harder for parents to understand than the other levels; levels A and D elicit fewer expressions of a desire for more lessons than the other levels. Grade level was not significantly related to questionnaire responses.

Responses to Open-Ended Item

The final item on the parent questionnaire invited respondents to "write any other comments about the At-Home program" on the back of the questionnaire. Of the 218 returned questionnaires, nearly half (102) had additional comments written on the back. These comments are listed (exactly as they appeared) in Attachment B-3. These responses are directly relevant to the following evaluation question:

Evaluation Question 1-8: Did participating parents judge the program to be of any benefit?

Inspection of these comments reveals the majority to be very positive. That is, most of the respondents indicated they enjoyed the program and many expressed a wish for its continuation in the future. Different parents tended to emphasize different aspects of the program as particularly important to them. For example, several stated they liked the opportunity to interact with their child and that the experience gave them a better appreciation of the child's strengths and weaknesses. Several thought the program was beneficial in terms of maintaining the child's academic skills during the summer vacation, and many noted that their children enjoyed working on the lessons.

However, parents' written comments were not uniformly positive. A few respondents thought the lessons were too easy for their child, while an equal number thought the lessons were too hard. Several parents wanted to see math lessons in addition to the reading lessons. Two parents said they were unable to get help when they needed it, and one wished that the lessons took longer than 15-20 minutes to complete. One parent was disappointed that her child received the same level the child worked on last summer. Three parents felt the program started too early and that it should not start before school ends. Four parents commented on problems they had communicating with program headquarters in Maryland (e.g., being told that only seven lessons were received when all ten had been sent).

In sum, most parents judged the program to be beneficial, although several had specific suggestions for improving it.

80.61

Questionnaire Item	# of Respondents Endorsing Item	% of Respondents Endorsing Item
I think the instructions were easy to understand.	155	71.1
Sometimes the instructions were hard to understand.	38	17.4
(Both responses).	16	7.3
(No response).	9	4.1

Figure B-1. UNDERSTANDING OF LESSON INSTRUCTIONS.

Questionnaire Item	# of Respondents Endorsing Item	% of Respondents Endorsing Item
We had problems getting our corrected lessons back from Maryland.	11	5.0
(No response).	210	95.0

Figure B-2. INTERACTION WITH PROGRAM HEADQUARTERS.

Questionnaire Item	# of Respondents Endorsing Item	% of Respondents Endorsing Item
I wish there were more than ten lessons.	56	25.7
(No response).	162	74.3

Figure B-3. DESIRE FOR MORE LESSONS.

Questionnaire Item	# of Respondents Endorsing Item	% of Respondents Endorsing Item
I was satisfied with the parent training.	171	78.4
I was not satisfied with the parent training.	4	1.8
I did not get any parent training.	24	11.0
(Got no training and satisfied with training).	6	2.8
(No response).	12	5.5

Figure B-4. FEELINGS ABOUT PARENT TRAINING.

Questionnaire Item	# of Respondents Endorsing Item	% of Respondents Endorsing Item
I was able to get help when I needed it.	67	30.7
I was not able to get help when I needed it.	4	1.8
(No response).	147	67.4

Figure B-5. AVAILABILITY OF HELP FOR PARENTS.

Questionnaire Item	# of Respondents Endorsing Item	% of Respondents Endorsing Item
I was told my child might be held back...	6	2.8
(No response).	212	97.2

Figure B-6. NUMBER OF PARENTS PRESSURED TO JOIN.

Questionnaire Item	# of Respondents Endorsing Item	% of Respondents Endorsing Item
We usually did each lesson in one day.	161	73.9
We usually worked on one lesson several times during the week.	23	10.6
(Both responses).	8	3.7
(No response).	26	11.9

Figure B-7. FAMILY WORK STYLE.

Questionnaire Item	# of Respondents Endorsing Item	% of Respondents Endorsing Item
Child needed a lot of help with the lessons.	27	12.4
Child did not need a lot of help with the lessons.	140	64.2
(Both responses).	4	1.8
(No responses).	47	21.7

Figure B-8. AMOUNT OF PARENTAL ASSISTANCE NEEDED BY CHILD.

Questionnaire Item	# of Respondents Endorsing Item	% of Responsents Endorsing Item
Child liked doing the lessons.	173	79.4
Child did not like doing the lessons.	14	6.4
(Both responses).	6	2.8
(No response).	25	11.5

Figure B-9. CHILD'S ENJOYMENT OF LESSONS.

80.61

Questionnaire Item	# of Respondents Endorsing Item	% of Respondents Endorsing Item
"Who usually helped child with the lessons?"		
Mother	133	61.1
(Mother plus someone else).	(48)	(22.0)
Father	12	5.5
(Father plus someone else).	(18)	(8.3)
Sibling	4	1.8
(Sibling plus someone else).	(24)	(11.0)
Other	14	6.4
(Other plus someone else).	(10)	(4.6)
No One	3	1.4
(No one plus someone else).	(7)	(3.2)

Figure B-10. FAMILY MEMBER WHO ASSISTED CHILD.

Questionnaire Item	# of Respondents Endorsing item	% of Respondents Endorsing item
"Has child been in the program before?"		
Yes.	40	18.3
No.	178	81.7

Figure B-11. NUMBER OF REPEAT PARTICIPANTS.

Questionnaire Response		SESSION LEVEL					
		A	A/B	B	C	D	X-Z
Thought the instructions were hard to understand, or both hard and easy to understand.	n	10	8	19	4	9	3
	%	(32)	(19)	(42)	(13)	(31)	(11)
Thought the instructions were easy to understand.	n	21	35	26	26	20	24
	%	(68)	(81)	(58)	(87)	(69)	(89)

$X^2 = 14.05, p < .05$

Figure B-12. UNDERSTANDING OF INSTRUCTIONS BY SESSION LEVEL. Percents refer to column percents.

Questionnaire Response		1979-80 GRADE LEVEL					
		K	1	2	3	4	5
Thought the instructions were hard to understand, or both hard and easy to understand.	n	9	18	9	9	4	4
	%	(31)	(29)	(29)	(30)	(17)	(14)
Thought the instructions were easy to understand.	n	20	44	22	21	20	25
	%	(69)	(71)	(71)	(70)	(83)	(86)

$X^2 = 4.42, p > .10$

Figure B-13. UNDERSTANDING OF INSTRUCTIONS BY GRADE LEVEL. Percents refer to column percents.

Questionnaire Response		SESSION LEVEL A	A/B	B	C	D	X-Z
Child did not like doing the lessons.	n	3	1	2	1	3	4
	%	(10)	(2.5)	(5)	(4)	(12)	(17)
Child liked doing the lessons.	n	27	40	35	26	22	20
	%	(90)	(97.5)	(95)	(96)	(88)	(83)

$X^2 = 6.13, p > .10$

Figure B-14. CHILD'S ENJOYMENT OF LESSONS BY SESSION LEVEL. Percents refer to column percents.

Questionnaire Response		1979-80 GRADE LEVEL K	1	2	3	4	5
Child did not like doing the lessons.	n	3	1	2	2	4	2
	%	(11)	(2)	(7)	(8)	(18)	(8)
Child liked doing the lessons.	n	25	56	26	23	18	22
	%	(89)	(98)	(93)	(92)	(82)	(92)

$X^2 = 6.69, p > .10$

Figure B-15. CHILD'S ENJOYMENT OF LESSONS BY GRADE LEVEL. Percents refer to column percents.

Questionnaire Response		SESSION LEVEL					
		A	A/B	B	C	D	X-Z
I wish there were more than ten lessons.	n	4	15	16	11	2	7
	%	(13)	(34)	(32)	(35)	(7)	(24)
No Response.	n	27	29	34	20	27	22
	%	(87)	(66)	(68)	(65)	(93)	(76)

$X^2 = 12.28$, $p < .05$

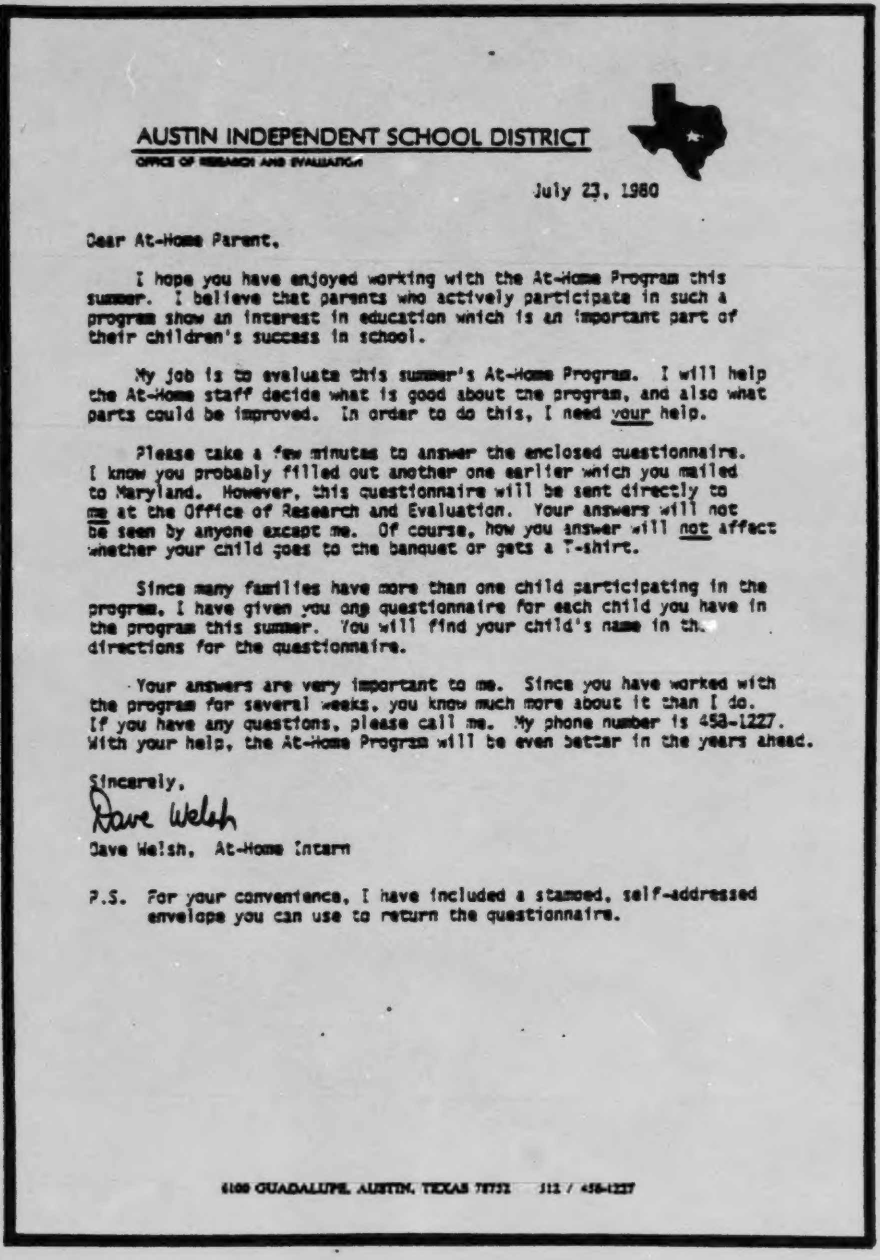
Figure B-16. DESIRE FOR MORE LESSONS BY SESSION LEVEL. Percents refer to column percents.

Questionnaire Response		1979-80 GRADE LEVEL					
		K	1	2	3	4	5
I wish there were more than ten lessons.	n	3	20	11	6	9	6
	%	(10)	(31)	(31)	(20)	(36)	(20)
No Response.	n	26	44	25	24	16	24
	%	(90)	(69)	(69)	(80)	(64)	(80)

$X^2 = 7.47$, $p > .10$

Figure B-17. DESIRE FOR MORE LESSONS BY GRADE LEVEL. Percents refer to column percents.

Attachment B-1
(Page 1 of 2)



AUSTIN INDEPENDENT SCHOOL DISTRICT
OFFICE OF RESEARCH AND EVALUATION

July 23, 1980

Dear At-Home Parent,

I hope you have enjoyed working with the At-Home Program this summer. I believe that parents who actively participate in such a program show an interest in education which is an important part of their children's success in school.

My job is to evaluate this summer's At-Home Program. I will help the At-Home staff decide what is good about the program, and also what parts could be improved. In order to do this, I need your help.

Please take a few minutes to answer the enclosed questionnaire. I know you probably filled out another one earlier which you mailed to Maryland. However, this questionnaire will be sent directly to me at the Office of Research and Evaluation. Your answers will not be seen by anyone except me. Of course, how you answer will not affect whether your child goes to the banquet or gets a T-shirt.

Since many families have more than one child participating in the program, I have given you one questionnaire for each child you have in the program this summer. You will find your child's name in the directions for the questionnaire.

Your answers are very important to me. Since you have worked with the program for several weeks, you know much more about it than I do. If you have any questions, please call me. My phone number is 458-1227. With your help, the At-Home Program will be even better in the years ahead.

Sincerely,

Dave Welsh

Dave Welsh, At-Home Intern

P.S. For your convenience, I have included a stamped, self-addressed envelope you can use to return the questionnaire.

6100 GUADALUPE, AUSTIN, TEXAS 78752 512 / 458-1227

AUSTIN INDEPENDENT SCHOOL DISTRICT
OFFICE OF RESEARCH AND EVALUATION

AT-HOME QUESTIONNAIRE

DIRECTIONS: READ EACH QUESTION CAREFULLY. YOU CAN MARK MORE THAN ONE ANSWER FOR EACH QUESTION. THESE QUESTIONS ARE ABOUT YOU AND PATRICK __________________.

REMEMBER THAT YOU CAN MARK MORE THAN ONE ANSWER FOR EACH QUESTION.

1. THINK ABOUT THE LESSONS YOU AND PATRICK ____ WORKED ON THIS SUMMER. THEN READ THE STATEMENTS BELOW. IF YOU AGREE WITH A STATEMENT, FILL IN THE CIRCLE IN FRONT OF IT.

○ I THINK THE INSTRUCTIONS WERE EASY TO UNDERSTAND.
○ SOMETIMES THE INSTRUCTIONS WERE HARD TO UNDERSTAND.
○ WE HAD PROBLEMS GETTING OUR CORRECTED LESSONS BACK FROM MARYLAND.
○ I WISH THERE WERE MORE THAN TEN LESSONS.

2. THINK ABOUT THE WAY THE AT-HOME PROGRAM IS RUN BY THE AUSTIN SCHOOL DISTRICT. THEN READ THE STATEMENTS BELOW. IF YOU AGREE WITH A STATEMENT, FILL IN THE CIRCLE IN FRONT OF IT.

○ I WAS SATISFIED WITH THE PARENT TRAINING.
○ I WAS NOT STATISFIED WITH THE PARENT TRAINING.
○ I DID NOT GET ANY PARENT TRAINING.
○ I WAS ABLE TO GET HELP WHEN I NEEDED IT.
○ I WAS NOT ABLE TO GET HELP WHEN I NEEDED IT.
○ I WAS TOLD PATRICK ____ MIGHT BE HELD BACK IN SCHOOL IF WE DID NOT JOIN THE AT-HOME PROGRAM.

3. THINK ABOUT THE WAY YOU AND PATRICK ____ WORKED ON THE LESSONS THIS SUMMER. THEN READ THE STATEMENTS BELOW. IF A STATEMENT IS TRUE, FILL IN THE CIRCLE IN FRONT OF IT.

○ WE USUALLY DID EACH LESSON IN ONE DAY.
○ WE USUALLY WORKED ON ONE LESSON SEVERAL TIMES DURING THE WEEK.
○ PATRICK ____ NEEDED A LOT OF HELP WITH THE LESSONS.
○ PATRICK ____ DID NOT NEED A LOT OF HELP WITH THE LESSONS.
○ PATRICK ____ LIKED DOING THE LESSONS.
○ PATRICK ____ DID NOT LIKE DOING THE LESSONS.

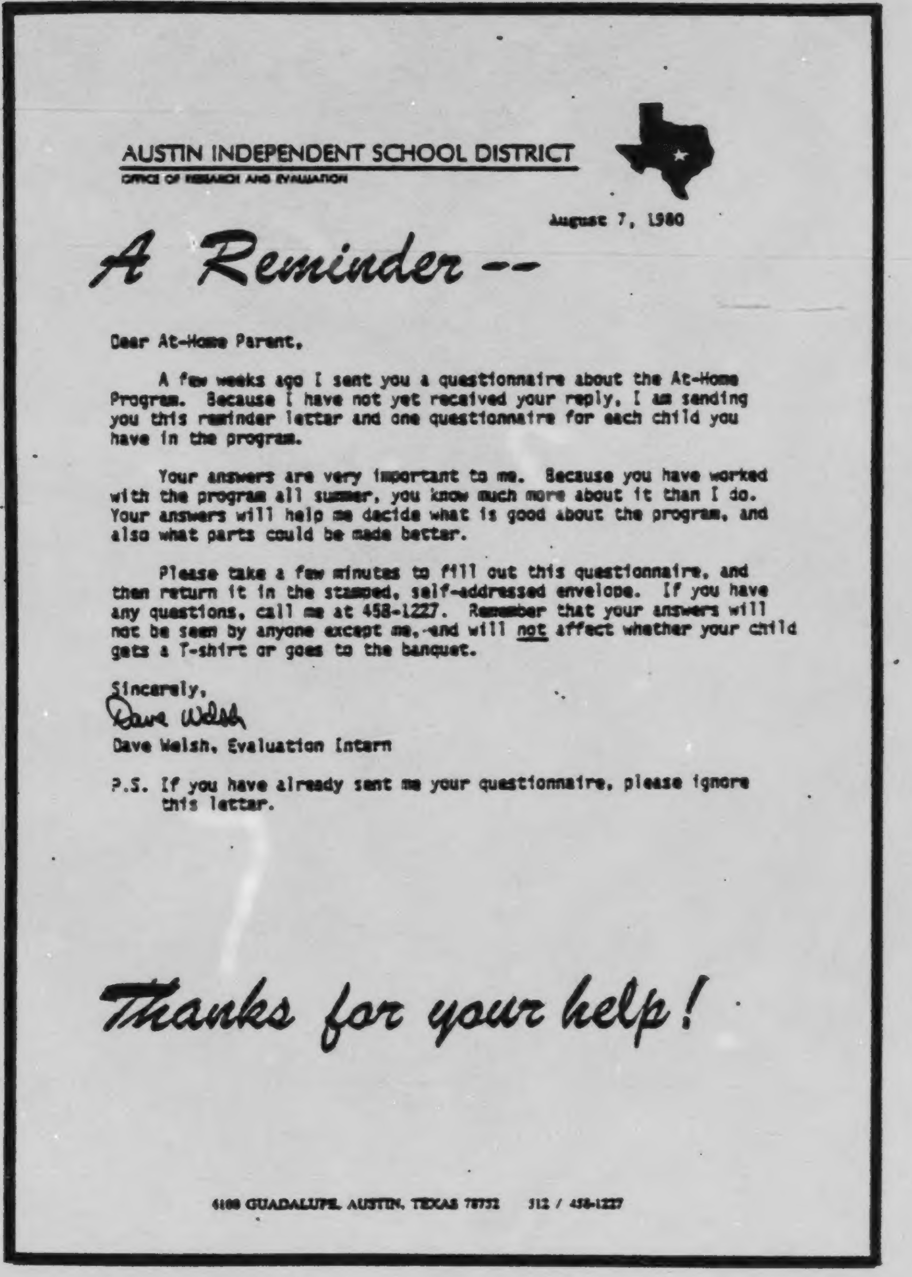
4. WHO USUALLY HELPED PATRICK ____ WITH THE LESSONS?

○ FATHER ○ MOTHER ○ SISTER OR BROTHER ○ OTHER ○ NO ONE

5. HAS PATRICK ____ BEEN IN THE AT-HOME PROGRAM BEFORE?

○ YES ○ NO

ON THE BACK OF THIS QUESTIONNAIRE, PLEASE WRITE ANY OTHER COMMENTS ABOUT THE AT-HOME PROGRAM.



AUSTIN INDEPENDENT SCHOOL DISTRICT
OFFICE OF RESEARCH AND EVALUATION

August 7, 1980

A Reminder --

Dear At-Home Parent,

A few weeks ago I sent you a questionnaire about the At-Home Program. Because I have not yet received your reply, I am sending you this reminder letter and one questionnaire for each child you have in the program.

Your answers are very important to me. Because you have worked with the program all summer, you know much more about it than I do. Your answers will help me decide what is good about the program, and also what parts could be made better.

Please take a few minutes to fill out this questionnaire, and then return it in the stamped, self-addressed envelope. If you have any questions, call me at 458-1227. Remember that your answers will not be seen by anyone except me,-and will not affect whether your child gets a T-shirt or goes to the banquet.

Sincerely,
Dave Welsh
Dave Welsh, Evaluation Intern

P.S. If you have already sent me your questionnaire, please ignore this letter.

Thanks for your help!

6100 GUADALUPE, AUSTIN, TEXAS 78752 512 / 458-1227

VERBATIM COMMENTS FROM AT-HOME PARENT QUESTIONNAIRE

The following written comments from parents were reproduced just as they were written so that their meaning and impact would not be unintentionally altered. Readers may judge for themselves the accuracy of the conclusions contained in the text of this appendix.

80.61

1. It is a nice program to have. I wish they keep them going.

2. I do think the At-Home Program is very helpful and effective; however, we feel to add more lessons would be a mistake. A child with learning difficulties needs periods of 'freedom' (summer vacation) from responsibilities and learning pressures just as children who learn easier do.

   In ________ particular case he enjoyed most of the At-Home Program and entered in to it with a great deal of enthusiasm, although I feel it would have been better if we could have waited until a week or two after school closed before beginning the extra work.

   I realize that children with learning difficulties need extra help and must work harder but I feel that this should be handled with the least amount of pressure because in a child with learning difficulties pressure produces frustration.

   As a whole we gained a great deal from the program and would like to participate again and would reccommend it highly to others.

3. ________ enjoyed the lessons very much. She looked forward to doing them each week. And I think they will help her in the coming year.

   Thank you for giving me more of a chance to help our daughter at home.

4. She enjoyed it and thought it was easy.

5. I enjoyed working with ____ in the "At-Home Program." I think this helped him to keep up his skills. However I feel the program should be started the week after _____ was out of school and lasted every week during the summer. The lessons were rathee easy for ____ and only took about 30 minutes.

   I'm glad to see the schools trying to coordinate a program with the parents. I feel that the children will be closer to their parents and in turn the parents will know a little bit about the learning habits of their child.

   Thanks for allowing ____ and I to take part in this "At-Homee Program." I hope the program continues next year.

6. They love the lessons and wanted to do all of them at one time. Hope you have them next summer.

7. I was only disappointed when a couple of times _____ and I had trouble understanding some of the "extra" work he was sent. I didn't think there was sufficient instructions for that work. When I wrote a note to the instructor in Maryland about the problems that we did not understand -- we never heard from her about it. Otherwise, I think _____ and I really benefitted from this program and wish we continue it next year.

8. My child and I enjoyed working in this program. ______ has been in the program for 3 years and she looks forward to it every summer. My younger daughter ______ says she would also like to take part in the program. I hope the at home program continues to be a suscess. And lasts for many more years. I'm looking forward to our secession.

9. I think the at-home-program is great. I enjoyed it very much and so did _______. I only wished that my son could have taken this lesson this summer. He likes working with the lesson too. He had it year before last but not this year. I really do think that these lesson really helps. So keep up the good work.

10. We had a lot of fun with the lessons, and _____. We feel we could do more lessons and will be interested in more At home programs. The only proplems we had were gitting the lessons mailed on time (we had a very busy summer). Thank you Mr. Welsh, and we hope to do more programs in the future.

11. Both _______ and I enjoyed the program very much, beacuse I could spend time helping her, and she was very happy when she got the lessons back. if I would had known about this program before I would have enroll her last year. I hope that they will continue this program again.

12. _____ will be going to Brentwood again next year and I have learned that Brentwood will not be in the At-Home Program next year. I am really disappointed. ______ thoroughly enjoyed the lessons & looked forward to doing them each week. There was one lesson - #5 that gave _____ a great deal of trouble. I felt it was much too hard for him. None of the other lessons gave him much trouble at all. I do wish _____ could be in this program next year.

13. _________ enjoyed the first two lessons. After that he did not like the program because he didn't want to take the time to read and answer the questions. Otherwise, I think this is a helpful program for the kids.

14. I think it was very interested for her and me because I learned a lot from it also. Hope this program will continue not only for during the summer, but also for school time.

15. i injoy the at home Program this summer _____ injoy to very murch Thank to the at home Program.

16. I felt the program was fine, and could have been a little bit harder with more reading stories in it. The math part was a surprize, although it was great it realy help _______ a lot more.

17. Good project to get parents involved with working with their children on school work. Shows child that parent thinks school work is important.

18. _____ and the family went on vacation three weeks ago. She did not resume the program when we returned. So, she did not complete the At-Home Program.

19. I think ______ learned a lot of new words or the meanings of simple everyday words that i Thought she knew. I am very pleased because ______ is ONE of my girls who really needed this kind of program. She was very slow in school two years ago, but now she did very well at Pleasant Hill in 79-80.

20. I would like to say is that I enjoyed this program very much. I wish they have this program again.

21. For the most part it was a good experience working together. I learned ______ strengths and weaknesses -- and sometimes it was frustrating for both of us.

The only suggestion for improving the program would be to start it later in the summer (rather than in May while school is still going on) and have it continue further into the summer -- hopefully up to August. This way we were still getting through school in May, having extra lessons, and now it's the middle of July and the summer program is over. It would be beneficial, I think, to have a continuum built so that when school starts, the 'rustiness' is not there. I'm sure this is a major objective of the At-Home Program, but the timing seems to negate, at least in part, this objective.

The rewards, though, of the banquet and T-shirt have been a real incentive for ____. He's been working on the lessons for his own sake, but knowing there's a reward at the end has really helped.

22. This program helped ______ keep up the study habits he had already learned in first grade and I feel he's that much more prepared to start 2nd grade. It could have been longer & he ______ could have handled more difficult work.

Thank you for the program. Please continue it.

23. ______ enjoy the program very much and she really looked forward to doing each lesson, in fact, some weeks she wanted to do two lesson at a time. The only trouble she had was toward the end of the program she had a little trouble understanding the test and it cause her to make more mistakes.

24. _______ has enjoyed this program and looks forward to getting his tests back in the mail. The only lesson he had any trouble with at all was Assignment 7A—upper and lower case letters. We worked on it a little longer than the rest and I will be reviewing him on that before next school year.

I'm pleased with this program.

25. I, ________________, mother of __________________, really enjoyed the At-Home Program. I enjoyed working with my daughter very much. The program even helped me a little, it was fun and educational. I found out my daughter knew more than I expected. We hope the program continues.

26. _____ is only six I have to read the instructions and explain the questions.

I like these At-Home lession they are working well with my two four (4) year old twin daughter which will be five (5) August 22, and will be intering Norman this school year. They also enjoy the lessions.

27. Both of my girl's enjoyed the program but they would finish their lesson in one hour & then they were anxious to do another lesson. They felt one lesson a week was too little. They didn't like waiting so long for another one. this is the only complaint they had.

28. We enjoy the program. It help me with _____ . he is a bright child I can help him now.

29. Seems like the first two lessons were returned immediately and then took awhile for the others to come back.

30. It would be good if we could have a program during the school year. __________ is weak in Math so the lessons she received on Math were a great help. Sometimes the instructions to the Math was confusing. We both enjoyed the experience and would like to see it continued.

P.S. We would like for __________ to continue in the program so that we can help her with her weakness. I try to help her with reading and her dad helps some with Math. We also work with the teacher during the year to keep up with her progress.

31. This program seems like a great idea for the children who have a hard time learning their reading lessons in school. It would be a shame if they had to lose all they had gained just because of summer break.

_____ seems to have been put in a little higher level than he had been in at school. Instead of repeating the same things he had already learned in the school year, he was learning new things toward the end of the program. This didn't create a problem (if it had I would've gotten in touch with the representative here). The only problem was my lack of ability to explain the instructions to him. After going over them a few times, we both "saw the light" and were off and running.

Thank you for your program.

32. The program can really help the childred learn. The only problem I had with _____ was finding the right time for her to do the lesson. Because sometimes she was to busy playing and didn't feel like working out her lesson. I think that in the morning was the good time for her to work her lesson.

33. 1. In _________ case I wish there were more than 10 lessons (if done in summer) as she needs the extra help.
    2. We never needed help, so I can't say for sure, but I imagine it would have been there.
    3. _______ liked the lessons fine, and got through them quickly. It was the rhymes she had trouble with.

34. _______ had to be told to do the lessons, beacuse when she would receive the corrections she would put the letter in the folder and sometimes wouldn't tell me that the corrections had come during the week, so I would put her right to do the lessons.

35. Lesson with vowel/syllables Instruction with clap hands and mark X on paper was OK. When page four had this same note plus nod head and mark circle word, _______ would get confused with short attention spand.

Did not get Lesson Seven back. Lost in mail.

Had a person to contact in case we needed help.

The beginning lessons were not as hard for _______. More time had to be spend on each lesson as we progressed. When we finished the Tenth lesson, _______ was disappointed there were no more lessons to do.

I enjoyed working with _______. It gave me an idea of the possible problems which might be occuring or where additional help is needed. Thank you for letting us participate.

36. It's a pretty good program and we enjoyed it. Thank you.

37. It's a very good Program.

38. Some of the lesson was so simple _______ wantad more to do. The extra lesson that they sent wasn't that interesting.

39. I would have liked more extra work.

40. The only comment I like to make is that this is a wonderful program for both the child and the parents, it also helps the parents find out what his child needs to work on a little bit more on.

41. _____ tries very hard. She dose most of lesson on her own.

She is a hard worker. But _____ just dosent pay attention or read directions very well. This causes _______ to ask question. She is a very slow learner. But she tries very hard. Reading I'snt one of her favorite hobbies.

_______ is very good at understanding. With a little help. She also likes to read.

___ dose good work. She catches on very quickly. She likes to read.

______ is doing fine with the At Homeprogram She just needs someone to explain it to her. She dose the rest.

42. I like the at-Home program.

43. I think that all parents could join the at-home program and that they would really enjoy working with their children. Also it will help them remember some of the things that they have learned in school. So that they will not forget what they learn in school.

44. Was satisfied with the program.

45. ________ and I enjoyed working together, I think this will be a great help to her going into fourth grade.

46. _____ and I did like the at home program. ______ keeps asking me about the T-shirt. I think thats what he was really working for.

47. I had several questions about the program. I called the number given in the training program but my calls were not returned. I called several times.

48. We both enjoyed working together on the lessons. Sometimes, ________ could not understand the instructions, but when I repeated them to her, they were easier for her. I think the at-Home-Program is just wonderful. I know my child has kept up with her reading all summer by working with the program.

49. I liked the lessons. it was an experience, but I had trouble with them myself, and I just did not have that much time to it down with her and my other daughter since I have two other smaller children at home.

    Other than that the program seems very helpful.

50. I enjoyed helping or working with her when ever I had the chance but it was kind of hard to understand. It was kind of hard to find the time for the lessons I have four kids and its kind of hard to give one child your individual time.

    Other than that the program is very helpful.

51. I myself as a parent really in trully injoy working with my kids if time permit. But we both enjoyed it. And hope very much that the same program will be available to his baby brother and thank you again for the program.

52. We were pleased and happy to participate. The money part was the hardest for _____. The rest was fairly easy for her.

53. _____ didnt like the extry work. When he had to draw he didnt wont to do it, because he sead he couldnt draw that good. Most of the work had at the answer right their, but he would guess at the question. The program was great it improved his reading a great deal.

54. ________ sometimes dont understand her lessons. But alfre a while she come to a understanding But we have to help our child. We are prout of ________ and ____. we let help our children with Home Program. hope lot of mother help. hope to keep up the good work. P.S. sometime I late because my husband is Ill.

(other child)
We injoying with together cause ____ love to read and I love to teach my son to read, I just love this 'home program,' my son and I have a understanding on the program. Let keep up the good work.

55. I think the at home program is ok and beside _____ like to study. But got behind on the program cause we when on vacation. Sometime I understand the work and I had trouble with it. Thank you.

56. _____ and I liked the at home program very much. In the first few lessons she needed more help, toward the end she was able to work alone, asking only a few questions. With one exception the math. Anita had to get her sister's help with the math.

The at home program helps to keep the mind alert during the summer. Thanks.

57. This Program is a very good one for the children it keeps them interested in school. and it is even better when you make it a game at home when you get them to study.

58. We were pleased and happy to participate. The money part was the hardest for ____. The rest was fairly easy for her.

59. I think the at-Home program is a help to a child which is slow in school and need some extra attention. It help the parent understand the probobling the teachers has at school with her child. It help the child spend sometime with her parent which, helps she maynot get to do if this wasn't a part of her summer activitys.

60. The only real problem I has was remembering to send her homework on the same day each week. Otherwise than that every thing went alright. Thank you very much.

61. I would like to see more of at Home Programs for children, also the program could include some math & Spelling. This age child is just begining to learn math. These lessons have helped keep the child aware of what she learned in the school year.

62. I thank you should have some math such as they have in the grade level they are in, I find that Math & reading is usualy the weak point, in most of our young people today. Working with young adults in my line of work my waitress can't add or muply, to get the state tax on the guest checks.

63. I had a little trouble finding items that they needed and helping _____ be cerative in some areas. It was my fault that the lessons where not received to you on time.

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64. (same parent as # 63)

_____ had trouble with some of the work (the math mostly). Sometimes I could not make her understand what I wanted her to do. It was my fault that the lessons where late to you. Also Alice was sick most of this summer.

65. ______ and I really enjoyed doing the Home Program. Joanna has really improve in her reading.

66. We are not finished with lessons because we were out of town for three weeks.

67. Will the program be extended? We have not completed it.

68. We really enjoyed helping Andrea work with the at home prog. We got to learn things out of it also. it was fun.

69. Sorry that I have taken so long in returning this. The At-Home-Program ask that we set aside 1 hour. It does not take ______ that long to do the lesson. I sometimes wish that they took a little longer than 15 to 20 minutes.

70. The lessons were pretty easy for ________ and I wish they had been a little more challenging. She did as many a week as I let her. so we had them finished before the mail in days'.

I feel with _____ that the lessons could have been alittle more challenging also. I was glad for the math sheets returned with the lessons.

71. _____ is very active in summer programs that he had to be remined of the lession. Maybe there where 1 or 2 instruction he did'n understand.

I like the At Home programs to have a little more math involve in it. It keep his mine open and he will not forget what he learn.

72. Thank you very much for the at-Home program, Ace learned a lot and hopfully he will be able to keep up in school this fall.

73. ________ and I really enjoyed doing the At-Home-Program. I hope it will be something we can look forward to every summer.

P.S. Sorry this is so late but we just arrived from vacation and it was in our stack of mail

74. I think 10 lessons were plenty, but I would like to have seen materials to extend the lessons. For eaxmple, in some exercises we circled the words that ________ could call correctly. However, there were no suggestions or supplemental activities for teaching the words she didn't know.

In other lessons ________ was asked to give a title to a story or summarize a main idea. She really was unable to do this without assistance. I would like to have had some suggestions on teaching her to do this without virtually just giving her the answers.

In general, the program was well written and simple to use.

75. ______ and I both enjoyed the program, we are usually working or doing some kind of lesson or something together with my grandson since all the other children have grownup, it was a nice experience but it wasn't new for us, because we usually include our children in all of our activities especially in the summer because we are all at home for the summer and we spend as mush time as we can just doing things together. We both enjoyed it.

76. It would be helpful to have a booklet besides the test paper.

77. I think the program is a very good idea (especially when school is out and these young children are still geared toward developing their minds). ________ looked forward to working on these lessons and I could tell it was very self satisfying for him to show his mother how smart he was. He required very little help after explaining the questions and sometimes, knew what to do with practically no explanantion at all.

Unfortunately, some problems developed at home that interferred with _______ finishing the lessons, but on the whole, I think it was very beneficial.

78. Last year _______ did really great on the at-Home-Lessons. It was my impression that each year (according to age and grade) that the program would be modified. So, he was given the same lessons as last year. If this is the case, I would strongly suggest that some changes be made. Otherwise, I find no other faults.

79. I enjoyed the At-Home Program. It let me know how ________ answer her questions in her school class and how she thinks about her work. I would like more Programs like this. The programs helps me to be able to study along with her and enjoy it. I was amazed at her understanding of her lessons.

80. My only regret was that I was having too many problems at home that I wasn't able to continue the lessons with my children. Perhaps I'll have a chance again another year in being able to help my children study.

81. The lessons were far too easy for _______. When the math sheet arrived _______ rebelled against the lessons entirely. She is and has been in the past over whelmed by the amount of math problems on an entire page.

______ has continued working with a reading tutor from St. Edward's University through out the summer at a third grade level. Therefore I did not force this program on her since it was below the level she is successful in already.

The three lessons she did complete took maybe 5 minutes a piece and did not warrant my help in any way.

82. I think the At-Home Program is very good. Being summer, they are always doing this and that, going here and there. We might of done that was required of the program. But it was very good, He ________ liked doing it.

83. I sent in all ten lessons and was told that they had only received seven.

84. This summer I was away training for my job. I didn't have anyone to take the time with ______ and her lesson. She was with her grand-parents and they are a little to old to help her with the lesson.

85. ______ and I completed all ten lessons but did not get to send them in because I had to leave town due to illness in the family. So we did not get to send them all in by the deadline but I hope they will have it next summer she sure like it.

86. 1. ______ does like to work with the at home program if he understand what he is suppose to do.

    2. I think _____ fail the third grade last semester because lack of communication between him and his room teacher. Course I know with 30 students in one room, the teacher can't spent to much time with one student. But with plain English and a little pacious, ______ can make the 3rd grade this year.

87. I wish there had been more math lessons.

88. By the end of July, _____ was beginning to become disinterested in taking time to do the lesson with so many other summer activities.

I feel the extra work sent at intervals wasn't necessary. After all, the children go to school for 9 months and don't want to spend most of the summer dealing with school work especially a six yr old. She hasenjoyed it & benefited a lot from enrichment and enlightment of course.

89. I enjoyed giving the lesson to ____, and ____ realy enjoyed doing on her own. _____ said the lesson were pretty esle--if yall have it again she'd like something little harded--something that she'll read and think more about it--before answering. this was a good ideal of At Home Program. I hope _____ will keep on, on the program. We both realy enjoyed. Sorry for not mailing this sooner.

90. In the beginning ___________ was enjoying the lessons and later the lesson got a little complex and he seemed to stop enjoying them.

91. Both ____ and I enjoy the program I learn lots from the lesson just much as ____ did we love it Thank you much

92. ____ and I did not complete the program -- I was taking care of my father who was terminally ill.

93. _______ and I did not complete the lessons during the summer due to some family problems which occurred. The program is very good, but _______ did have difficulty understanding much of it, possibly it was too advanced for her. I don't remember her having come across much of it in her homework and it was difficult for me to explain clearly on her level, since I'm not a teacher, myself. I'm sure next year will be better for her since she has now been exposed to some of it.

94. Both _____ and I enjoyed working with the At Home Program. I think it should have been offered many years before. It's the ideal thing to keep the mine in function during the summer months.

95. _____ enjoyed very much doing his lesson. he was very pleased when his lessons came back to see what he had scored.

96. _____ was not able to finish the program. She went to spend ½ the summer with her grandmother and she cannot read. I was very pleased with the program (the few lessons we did together) Thank you for all your cooperation.

97. I feel that the child should have been able to send in more than one lesson a week. A working parent's schedule may not allow 1 lesson per week. Sometimes we had more time than others and would have been able to do more than one lesson and send it in. Otherwise I think the lessons were fine and I enjoyed doing them.

98. _____ lessons were slow in being returned. As a result of this factor _____ lost interest in the program.

I was not satisfied with parent training. I feel the kits should have been explained more fully. As a working mother I found I had no means of reaching anyone at the Ed. Office during the time I wanted to ask questions.

Perhaps this program may have been of benefit to some children-- ____ didn't appear to improve.

____ was then placed in a one to one remedial reading class for the rest of the summer. There has been an improvement.

99. _________ will not go to Ridgetop next year. We have move to ----- she will go to Jane Landford. I don't know if they will have this program. I didn't know we were going to move

100. We really enjoyed working with the At HomeProgram I think that was very helpful for me and the children.

101. Although the lessons were very easy to do I found that if were not finished, it was due on me.

102. I think ________ enjoyed the work. It didn't last long, but it helps a lots.

```
S P S S - - STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

CDC 6000/CYBER 170 VERSION 8.0 - INSTALLED 27 AUGUST 80

        RUN NAME        SECOND RUN ON PARENT QUESTIONNAIRE
        VARIABLE LIST   INSTRUCT,MARYLAND,MORE,TRAINING,SUPPORT,COERCION,WORKSTYL,
                        HELPNEED,LIKED,HELPER,REPEATER
        INPUT MEDIUM    CARD
        # OF CASES      UNKNOWN
        INPUT FORMAT    FIXED(10X,F2.0,F1.0,F1.0,F3.0,F2.0,F1.0,F2.0,2F2.0,F5.0,F1.0)

       ACCORDING TO YOUR INPUT FORMAT, VARIABLES ARE TO BE READ AS FOLLOWS

       VARIABLE  FORMAT  RECORD    COLUMNS

       INSTRUCT  F 2. 0      1      11-  12
       MARYLAND  F 1. 0      1      13-  13
       MORE      F 1. 0      1      14-  14
       TRAINING  F 3. 0      1      15-  17
       SUPPORT   F 2. 0      1      18-  19
       COERCION  F 1. 0      1      20-  20
       WORKSTYL  F 2. 0      1      21-  22
       HELPNEED  F 2. 0      1      23-  24
       LIKED     F 2. 0      1      25-  26
       HELPER    F 5. 0      1      27-  31
       REPEATER  F 1. 0      1      32-  32

THE INPUT FORMAT PROVIDES FOR  11 VARIABLES.   11 WILL BE READ.
IT PROVIDES FOR  1 RECORDS (*CARDS*) PER CASE.
A MAXIMUM OF     32 *COLUMNS* ARE USED ON A RECORD.

       MISSING VALUES TRAINING (0)/SUPPORT (0)/COERCION (0)/LIKED (0)/
                      HELPNEED (0)/HELPER (0)/INSTRUCT (0)/MARYLAND (0)/
       VAR LABELS     INSTRUCT, UNDERSTANDING OF INSTRUCTIONS/
                      MARYLAND, PROBLEMS GETTING LESSONS BACK/
                      MORE, DESIRE FOR MORE LESSONS/
                      SUPPORT, AVAILABILITY OF HELP WHEN NEEDED/
                      COERCION, TOLD CHILD MIGHT FAIL/
                      WORKSTYL, HOW DID FAMILY WORK ON LESSONS/
                      HELPNEED, HOW MUCH HELP DID CHILD NEED/
                      LIKED, DID CHILD LIKE LESSONS/
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80.61

B-28

Attachment B-4
(Page 1 of 8)

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SECOND RUN OF PARENT QUESTIONNAIRE                                          10 DEC 80    13.00.12.

                                       HELPER, WHO HELPED CHILD DO LESSONS/
                                       REPEATER, WAS CHILD IN PROGRAM BEFORE/
                   VALUE LABELS        INSTRUCT (10) EASY TO UNDERSTAND (1)HARD TO UNDERSTAND(11)BOTH/
                                       MARYLAND (1)YES (0) NO/MORE (1)YES (0)NO/
                                       TRAINING (100)SATISFIED (10)NOT SATISFIED (1)GOT NONE
                                       (101) GOT NONE, SATISFIED/
                                       SUPPORT (10)YES (1)NO/COERCION (1)YES (0)NO/
                                       WORKSTYL (10)DID EACH LESSON IN ONE DAY (1)DURING WEEK OFTEN/
                                       HELPNEED (10)A LOT (1)NOT A LOT/LIKED (10)YES (1)NO/
                                       HELPER (10000)FATHER (1000)MOTHER (100)SIBLING (10)OTHER
                                       (1)NO ONE/REPEATER (0)NO (1)YES/
                   FREQUENCIES         GENERAL=INSTRUCT TO REPEATER
                   OPTIONS             3,8,9
                   READ INPUT DATA

             FREQUENCIES - INITIAL CM ALLOWS FOR  1697 VALUES
                           MAXIMUM CM ALLOWS FOR 18977 VALUES

             OPTION - 3
             PRINT OUTPUT IN 8.5 X 11 FORMAT

             OPTION - 8
             PRINT HISTOGRAMS

             OPTION - 9
             PRINT TABLE OF CONTENTS





END OF FILE ON FILE
AFTER READING     218 CASES FROM SUBFILE NONAME
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80.61

B-29

Attachment B-4
(Page 2 of 8)

```
SECOND RUN ON PARENT QUESTIONNAIRE          10 DEC 80 13.00.12. PAGE     5

FILE - NONAME    (CREATED - 10 DEC 80)

INSTRUCT  UNDERSTANDING OF INSTRUCTIONS


                                            RELATIVE  ADJUSTED     CUM
                                 ABSOLUTE     FREQ      FREQ       FREQ
CATEGORY LABEL            CODE     FREQ      (PCT)     (PCT)      (PCT)

HARD TO UNDERSTAND          1.       38       17.4      18.2       18.2

EASY TO UNDERSTAND         10.      155       71.1      74.2       92.3

BOTH                       11.       16        7.3       7.7      100.0

                        BLANK         9        4.1   MISSING
                                 ------     ------    ------
                        TOTAL       218      100.0     100.0

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SECOND RUN ON PARENT QUESTIONNAIRE          10 DEC 80 13.00.12. PAGE     5

FILE - NONAME    (CREATED - 10 DEC 80)

MARYLAND  PROBLEMS GETTING LESSONS BACK


                                            RELATIVE  ADJUSTED     CUM
                                 ABSOLUTE     FREQ      FREQ       FREQ
CATEGORY LABEL            CODE     FREQ      (PCT)     (PCT)      (PCT)

YES                         1.       11        5.0     100.0      100.0

                        BLANK       207       95.0   MISSING
                                 ------     ------    ------
                        TOTAL       218      100.0     100.0

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SECOND RUN ON PARENT QUESTIONNAIRE          10 DEC 80  13.00.12.  PAGE     7

FILE - NONAME   (CREATED - 10 DEC 80)

MORE       DESIRE FOR MORE LESSONS

                                                RELATIVE   ADJUSTED     CUM
                                    ABSOLUTE      FREQ       FREQ       FREQ
CATEGORY LABEL              CODE      FREQ       (PCT)      (PCT)      (PCT)

                              0.       162        74.3       74.3       74.3

YES                           1.        56        25.7       25.7      100.0
                                    -------    -------    -------
                           TOTAL       218       100.0      100.0

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SECOND RUN ON PARENT QUESTIONNAIRE          10 DEC 80  13.00.12.  PAGE     9

FILE - NONAME   (CREATED - 10 DEC 80)

TRAINING

                                                RELATIVE   ADJUSTED     CUM
                                    ABSOLUTE      FREQ       FREQ       FREQ
CATEGORY LABEL              CODE      FREQ       (PCT)      (PCT)      (PCT)

GOT NONE                      1.        24        11.0       11.7       11.7

NOT SATISFIED                10.         4         1.8        1.9       13.6

SATISFIED                   100.       171        78.4       83.0       96.6

GOT NONE, SATISFIED         101.         6         2.8        2.9       99.5

                            111.         1          .5         .5      100.0

                           BLANK        12         5.5    MISSING
                                    -------    -------    -------
                           TOTAL       218       100.0      100.0

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SECOND RUN ON PARENT QUESTIONNAIRE          10 DEC 80  13.0[illegible].12.  PAGE   11

FILE - [illegible]   (CREATED - 10 DEC 80)

SUPPORT   AVAILABILITY OF HELP WHEN NEEDED

                                                  RELATIVE   ADJUSTED      CUM
                                      ABSOLUTE      FREQ       FREQ        FREQ
CATEGORY LABEL               CODE       FREQ       (PCT)      (PCT)       (PCT)

NO                             1.          4         1.8        5.6         5.6

YES                           10.         67        30.7       94.4       100.0

                            BLANK        147        67.4     MISSING
                                      -------     -------    -------
                            TOTAL        218       100.0      100.0

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SECOND RUN ON PARENT QUESTIONNAIRE          10 DEC 80  13.0[illegible].12.  PAGE   13

FILE - [illegible]   (CREATED - 10 DEC 80)

COERCION   TOLD CHILD MIGHT FAIL

                                                  RELATIVE   ADJUSTED      CUM
                                      ABSOLUTE      FREQ       FREQ        FREQ
CATEGORY LABEL               CODE       FREQ       (PCT)      (PCT)       (PCT)

YES                            1.          6         2.8      100.0       100.0

                            BLANK        212        97.2     MISSING
                                      -------     -------    -------
                            TOTAL        218       100.0      100.0

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SECOND RUN ON PARENT QUESTIONNAIRE          10 DEC 80 13.00.12. PAGE   15 -
FILE - NONAME    (CREATED - 10 DEC 80)

WORKSTYL  HOW DID FAMILY WORK ON LESSONS

                                                RELATIVE  ADJUSTED    CUM
                                      ABSOLUTE    FREQ      FREQ      FREQ
CATEGORY LABEL                  CODE    FREQ     (PCT)     (PCT)     (PCT)

                                  -0       26     11.9      11.9      11.9

DURING WEEK OFTEN                 1.       23     10.6      10.6      22.5

DID EACH LESSON IN O             10.      161     73.9      73.9      96.3

                                 11.        8      3.7       3.7     100.0
                                       ------   ------    ------
                               TOTAL      218    100.0     100.0

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SECOND RUN ON PARENT QUESTIONNAIRE          10 DEC 80 13.00.12. PAGE   17
FILE - NONAME    (CREATED - 10 DEC 80)

HELPNEED  HOW MUCH HELP DID CHILD NEED

                                                RELATIVE  ADJUSTED    CUM
                                      ABSOLUTE    FREQ      FREQ      FREQ
CATEGORY LABEL                  CODE    FREQ     (PCT)     (PCT)     (PCT)
NOT A LOT                         1.      140     64.2      81.9      81.9

A LOT                            10.       27     12.4      15.8      97.7

                                 11.        4      1.8       2.3     100.0

                               BLANK       47     21.6   MISSING
                                       ------   ------    ------
                               TOTAL      218    100.0     100.0

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SECOND RUN ON PARENT QUESTIONNAIRE          10 DEC 80 15.56.12. PAGE   19

FILE - NONAME   (CREATED - 10 DEC 80)

LIKED      DID CHILD LIKE LESSONS

                                                RELATIVE  ADJUSTED    CUM
                                      ABSOLUTE    FREQ      FREQ      FREQ
CATEGORY LABEL                 CODE     FREQ     (PCT)     (PCT)     (PCT)

NO                               1.       14       6.4       7.3       7.3

YES                             10.      173      79.4      89.6      96.9

                                11.        6       2.8       3.1     100.0

                              BLANK       25      11.5   MISSING
                                      ------    ------    ------
                              TOTAL      218     100.0     100.0

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SECOND RUN ON PARENT QUESTIONNAIRE          10 DEC 80 15.56.12. PAGE   23

FILE - NONAME   (CREATED - 10 DEC 80)

REPEATER   WAS CHILD IN PROGRAM BEFORE

                                                RELATIVE  ADJUSTED    CUM
                                      ABSOLUTE    FREQ      FREQ      FREQ
CATEGORY LABEL                 CODE     FREQ     (PCT)     (PCT)     (PCT)

NO                               0.      178      81.7      81.7      81.7

YES                              1.       40      18.3      18.3     100.0
                                      ------    ------    ------
                              TOTAL      218     100.0     100.0

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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SECOND RUN ON PARENT QUESTIONNAIRE                13 DEC 80   13.00.12.  PAGE   21

FILE - NONAME   (CREATED - 13 DEC 80)

HELPER      WHO HELPED CHILD DO LESSONS

                                                    RELATIVE   ADJUSTED     CUM
                                        ABSOLUTE      FREQ       FREQ       FREQ
CATEGORY LABEL                 CODE       FREQ       (PCT)      (PCT)      (PCT)

NO ONE                           1.          3         1.4        1.4        1.4

OTHER                           10.         14         6.4        6.4        7.8

SIBLING                        100.          4         1.8        1.8        9.6

MOTHER                        1000.        133        61.0       61.0       70.6

                              1001.          4         1.8        1.8       72.5

                              1010.          8         3.7        3.7       76.1

                              1011.          1          .5         .5       76.6

                              1100.         21         9.6        9.6       86.2

FATHER                       10000.         12         5.5        5.5       91.7

                             11000.         12         5.5        5.5       97.2

                             11001.          2          .9         .9       98.2

                             11010.          1          .5         .5       98.6

                             11100.          3         1.4        1.4      100.0
                                        ------     ------     ------
                             TOTAL         218       100.0      100.0

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1980 Summer At-Home Reading Program

Appendix C

AT-HOME STUDENT PROFILES

Instrument Description: At-Home Student Profiles

Brief description of the instrument:

A form used to record information about each participant's completed lessons, number of errors per lesson, date of lesson completion, etc.

To whom was the instrument administered?

Profiles were maintained for each At-Home participant.

How many times was the instrument administered?

As often as lessons were received by At-Home headquarters.

When was the instrument administered?

Student profile information was collected until August 8, 1980, (for students participating in the first 10-week session); and until October 22, 1980, (for students participating in the second 10-week session).

Where was the instrument administered?

At-Home headquarters in Baltimore, Maryland.

Who administered the instrument?

At-Home staff.

What training did the administrators have?

Administrators were all public school teachers. The nature of any specific training they may have been given is unknown.

Was the instrument administered under standardized conditions?

Not applicable.

Were there problems with the instrument or the administration that might affect the validity of the data?

Data were collected by program staff. However, there is no reason to believe that the information is inaccurate or incomplete.

Who developed the instrument?

At-Home headquarters in Baltimore, Maryland.

What reliability and validity data are available on the instrument?

Not applicable.

Are there norm data available for interpreting the results?

No.

AT-HOME STUDENT PROFILES

Purpose

Information contained in the student profiles was used to answer the following evaluation questions and information needs:

> Evaluation Question 1-1: Were the objectives of the At-Home Program met?
>
> Evaluation Question 1-2: Were the number of lessons completed and/or the percentage of items correct positively related to subsequent achievement gains?
>
> Evaluation Question 1-3: Was the amount of extra work completed by participants positively related to subsequent achievement gains?
>
> Evaluation Question 1-7: Were the session levels used by participants appropriately matched to their entering ability levels?
>
> Information Need 1: How many students participated in the 1980 Summer At-Home Program by grade, sex, and ethnicity?
>
> Information Need 3: Did the program meet its participation objective?

Procedure

Data Collection

As each participant's lessons were received by At-Home headquarters in Maryland, information about those lessons was recorded on the form reproduced in Attachment C-1. This form was developed by the At-Home staff, and includes spaces for information about the date the lesson (or "session") was received, the number of errors in the lesson, other materials which were returned along with the lesson, and materials which were sent back to the participant.

Each participant's profile was then sent to AISD's Office of Research and Evaluation, where the information was summarized and analyzed.

Data Analysis

Participation objective:

Simple summary statistics (frequencies, means, variances) were calculated in order to provide information relevant to these questions. Number of lessons completed and number of errors per lesson were summarized using Program CONDESCRIPTIVE of the SPSS package. Number of errors per completed lesson was calculated for each participant by dividing the total number of errors by the number of completed lessons. The results are presented in Attachment C-2.

Number of Lessons and Achievement Gains:

All participants who had both pre- and posttest ITBS scores were grouped according to number of lessons completed (0-2, 3-4, 5-6, 7-8, 9-10). In order to compare gains made by participants in these groups, analyses equivalent to the slopes and intercepts tests in the analysis of covariance were done using program REGRAN of the EDSTAT package. The three linear models used are described below.

Model 1: $$Y = a_0U + a_1X^{(1)} + a_2X^{(2)} + a_3X^{(3)} + a_4X^{(4)} + a_5X^{(5)} + a_6X^{(6)} + a_7X^{(7)} + a_8X^{(8)} + a_9X^{(9)} + a_{10}X^{(10)} + E$$

Model 2: $$Y = a_0U + a_{11}X^{(11)} + a_{12}X^{(6)} + a_{13}X^{(7)} + a_{14}X^{(8)} + a_{15}X^{(9)} + a_{16}X^{(10)} + E$$

Model 3: $$Y = a_0U + a_{17}X^{(11)} + E$$

The vectors used to define the models were as follows:

Y	was posttest ITBS reading total grade equivalent.
U	was the unit vector.
$X^{(1)}$	was pretest ITBS reading total grade equivalent if the student completed 1-2 lessons; 0, otherwise.
$X^{(2)}$	was pretest ITBS reading total grade equivalent if the student completed 3-4 lessons; 0, otherwise.
$X^{(3)}$	was pretest ITBS reading total grade equivalent if the student completed 5-6 lessons; 0, otherwise.
$X^{(4)}$	was pretest ITBS reading total grade equivalent if the student completed 7-8 lessons, 0, otherwise.
$X^{(5)}$	was pretest ITBS reading total grade equivalent if the student completed 9-10 lessons; 0, otherwise.
$X^{(6)}$	was 1 if the student completed 1-2 lessons; 0, otherwise.
$X^{(7)}$	was 1 if the student completed 3-4 lessons; 0, otherwise.
$X^{(8)}$	was 1 if the student completed 5-6 lessons; 0, otherwise.

$X^{(9)}$ was 1 if the student completed 7-8 lessons; 0, otherwise.

$X^{(10)}$ was 1 if the student completed 9-10 lessons, 0, otherwise.

$X^{(11)}$ was pretest ITBS reading total grade equivalent.

The output for these analyses is included in Attachments C-3 and C-4.

Appropriateness of Session Levels

The At-Home session level on which each participant worked was classified in one of three ways. The level was either "too hard," "too easy," or "appropriate." This classification was derived as follows. Participants were first grouped by session level. Then their spring, 1980, ITBS reading total grade equivalents were examined. If the first digit of the grade equivalent corresponded to the designated difficulty level of the session level, the level was classified as "appropriate." If the first digit of the ITBS total reading grade equivalent (pretest) was higher than the session's difficulty level, the level was classified as "too easy." If the first digit of the grade equivalent was below the session's difficulty level, the session was classified as "too hard." The difficulty level of the various sessions was determined by the program's developers (see Attachment C-5). Level A was not included in these analyses because the bulk of the participants at this level were kindergarten students in the spring of 1980, and therefore had no ITBS scores.

Results

Figures C-1 and C-2 summarize the student profile information for the first ten-week session with respect to number of lessons completed and number of errors per completed lesson. Figure C-3 contains the same information for the second ten-week session. Inspection of Figures C-1 and C-2 suggests that participants at Levels X, Y, and Z made more errors than participants at the lower levels. Level Y, and Z participants completed fewer lessons than the other participants.

Evaluation Question 1-1 (also Information Need 3): Did the program meet its participation objective?

The participation objective was worded as follows:

> *On the average, participants in the Title I summer school At-Home program will complete 80% of the At-Home lessons.*

Inspection of Figure C-1 reveals that this objective was not met. On the average, participants in the regular 10-week At-Home program completed 77% of the At-Home lessons.

Evaluation Question 1-2: Were the number of lessons completed positively related to subsequent achievement gains?

Figure C-4 displays the results of the analysis comparing gains by number of lessons completed. Gains in ITBS reading total grade equivalent were not significantly different according to the number of lessons completed by participants. Thus, there appears to be no relationship between number of completed lessons and achievement gains.

Evaluation Question 1-3: Was the amount of extra work completed by participants positively related to subsequent achievement gains?

At the time the evaluation design was written, it was anticipated that the student profiles would contain information on the amount of extra work completed by participants. However, only information on the amount of extra work sent to participants was collected by At-Home headquarters. Since students were not required to complete and return the extra work they received, this question could not be answered.

Evaluation Question 1-7: Were the session levels used by participants appropriately matched to their entering ability levels?

Figure C-5 shows the number of participants whose session levels were appropriately and inappropriately matched to their entering ability levels. Level A/B has a very high proportion of students for whom this level is too easy, Levels X, Y, and Z have a high proportion of students for whom these levels are too hard. Thus, the answer to this question depends to some extent on the particular session level under consideration. The highest and lowest sessions are less appropriately matched to entering ability levels than the middle sessions. Overall, 144 participants were inappropriately matched; 107 were appropriately matched.

A relatively consistent picture emerges when these data are compared to the data on lessons completed (Figure C-1) and number of errors (Figure C-2). That is, participants at the upper session levels (X-Z) appear to be working on levels which are too difficult for them, making more errors, and completing fewer lessons. This information suggests that local personnel may need to examine more closely the way in which participants are assigned session levels.

Information Need 1: How many students participated in the 1980 summer At-Home Program by grade, sex, and ethnicity?

The list of students verfied by program headquarters as active At-Home participants was matched to the HEW file maintained by AISD in order to produce a listing by grade, sex, and ethnicity. This listing is shown in Figure C-6. There were 96 Black participants (44 males and 52 females); 139 Hispanic participants (57 males and 82 females); and 94 other ethnicities (52 males and 42 females).

The total number of students in this list (N = 333) is slightly larger than the number of students for whom student profile data were received (N = 307).

Session Level	Number of Participants	Mean	Variance
A	48	7.98	5.55
A/B	68	7.93	6.58
B	74	7.74	6.93
C	35	7.71	7.33
D	38	7.24	8.83
X	27	8.26	5.51
Y	14	6.14	5.52
Z	3	5.00	12.00
Total	307	7.70	6.87

Figure C-1. AVERAGE NUMBER OF LESSONS COMPLETED. First ten-week session.

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Session Level	Number of Participants	Mean	Variance
A	48	.50	.36
A/B	68	.49	.37
B	74	.59	.42
C	35	1.04	.92
D	38	1.04	.98
X	27	1.57	1.81
Y	14	2.83	2.12
Z	3	1.67	2.58
Total	307	.86	1.02

Figure C-2. AVERAGE NUMBER OF ERRORS PER COMPLETED LESSON. First ten-week session.

	# of Lessons Completed	# of Errors per Completed Lesson
Mean	8.05	1.43
Variance	5.02	3.02

Figure C-3. STUDENT PROFILE INFORMATION FOR SECOND TEN-WEEK SESSION (N = 38).

Group	N	Mean Grade Equiv.		Gain	Equal Slopes			Equal Gains		
		Pretest	Posttest		df	F	p	df	F	p
Completed 1-2 Lessons	4	2.85	3.08	.23	4,129	<1	.77	4,133	<1	.90
Completed 3-4 Lessons	22	2.85	3.02	.17						
Completed 5-6 Lessons	17	2.30	2.51	.21						
Completed 7-8 Lessons	27	2.33	2.62	.29						
Completed 9-10 Lessons	69	2.54	2.81	.27						

Figure C-4. READING TOTAL GAINS BY NUMBER OF LESSONS COMPLETED.

Appropriateness		AT-Home Session Level				
		A/B	B	C	D	X-Z
Too Hard	n	-	3	10	12	22
	%	-	3	29	32	50
Appropriate	n	15	43	17	13	19
	%	23	61	49	34	43
Too Easy	n	49	24	8	13	3
	%	77	34	22	34	7

Figure C-5. APPROPRIATENESS OF MATCH BETWEEN SESSION LEVEL AND ENTERING ABILITY LEVEL. Percents refer to column percents.

	Male			Female		
Grade	Black	Hispanic	Other	Black	Hispanic	Other
Early Childhood	-	-	-	4	-	-
Kindergarten	9	9	10	6	7	7
1	12	22	15	17	21	16
2	7	11	5	6	17	3
3	4	7	5	8	15	7
4	7	5	5	5	10	3
5	5	3	12	6	12	6
TOTAL	44	57	52	52	82	42

Figure C-6. NUMBER OF AT-HOME PARTICIPANTS BY GRADE, SEX, AND ETHNICITY. Four participants did not have ethnicity or sex data on file.

Attachment C-1

INDIVIDUALIZED STUDENT-PARENT SKILL PROFILE
AT-HOME-PROGRAM

WEEK	SESSION I LEVEL ________					SESSION II LEVEL ________					SESSION III LEVEL ________				
	DATE	ERRORS	ENV	IN	OUT	DATE	ERRORS	ENV	IN	OUT	DATE	ERRORS	ENV	IN	OUT
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
TOTAL															
	LA	L-1	L-2	L-3	EV	LA	L-1	L-2	L-3	EV	LA	L-1	L-2	L-3	EV

CERT. ____________

COMMENTS: ____
____
____

SCHOOL ______________________ STUDENT ______________________
ADDRESS ______________________ PARENT ______________________
____
CITY STATE ZIP

SESSION I ________
SESSION II ________

```
                                                                 19 NOV 80
          **************************************
          *          COMPUTATION CENTER         *
          *    UNIVERSITY OF TEXAS AT AUSTIN    *
          **************************************

          S P S S - - STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES

          CDC 6000/CYBER 170 VERSION 8.0  -  INSTALLED 27 AUGUST 80

                    RUN NAME        STUDENT PROFILES: DESCRIPTIVE DATA FOR 1ST 10 WEEKS
                    VARIABLE LIST   LESSONS, ERRORS, KITLEVEL
                    INPUT MEDIUM    CARD
                    # OF CASES      UNKNOWN
                    INPUT FORMAT    FIXED(34X,F2.0,1X,F4.0,1X,F1.0)

                    ACCORDING TO YOUR INPUT FORMAT, VARIABLES ARE TO BE READ AS FOLLOWS

                    VARIABLE  FORMAT  RECORD    COLUMNS

                    LESSONS   F 2. 0       1     35-  36
                    ERRORS    F 4. 0       1     38-  41
                    KITLEVEL  F 1. 0       1     43-  43

     THE INPUT FORMAT PROVIDES FOR    3 VARIABLES.    3 WILL BE READ.
     IT PROVIDES FOR  1 RECORDS (*CARDS*) PER CASE.
     A MAXIMUM OF     43 *COLUMNS* ARE USED ON A RECORD.

                    VAR LABELS      LESSONS, TOTAL NUMBER OF LESSONS COMPLETED/
                                    ERRORS, AVERAGE NO. OF ERRORS PER LESSON/
                    VALUE LABELS    KITLEVEL (1)A (2)AB  (3)B (4)C (5)D (6)X (7)Y (8)Z/
                    CONDESCRIPTIVE  LESSONS, ERRORS
                    STATISTICS      ALL
                    READ INPUT DATA

               [illegible] CM NEEDED FOR CONDESCRIPTIVE

               OPTION - 1
               IGNORE MISSING VALUE INDICATORS
               (NO MISSING VALUES DEFINED...OPTION 1 WAS FORCED)
```

Attachment C-2
(Page 1 of 6)

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STUDENT PROFILES: DESCRIPTIVE DATA FOR 1ST 12 WEEKS   SESSION A

FILE    NONAME    (CREATION DATE =  19 NOV 80)


VARIABLE  LESSONS     TOTAL NUMBER OF LESSONS COMPLETED

MEAN              7.979      STD ERR            .344      STD DEV          2.356
VARIANCE          5.553      KURTOSIS          -.154      SKEWNESS         -.931
MINIMUM           2.000      MAXIMUM          13.000      SUM            303.000
C.V. PCT         29.532      .95 C.I.          7.295            TO         8.663

VALID CASES        47        MISSING CASES      3

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VARIABLE  ERRORS      AVERAGE NO. OF ERRORS PER LESSON

MEAN               .490      STD ERR            .086      STD DEV           .596
VARIANCE           .355      KURTOSIS          2.775      SKEWNESS         1.696
MINIMUM           0          MAXIMUM           2.500      SUM             23.020
C.V. PCT        121.636      .95 C.I.           .325            TO          .664

VALID CASES        47        MISSING CASES      0

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STUDENT PROFILES: DESCRIPTIVE DATA FOR 1ST 12 WEEKS      SESSION A/B

FILE    NONAME    (CREATION DATE =  19 NOV 80)

VARIABLE  LESSONS     TOTAL NUMBER OF LESSONS COMPLETED

MEAN              7.925      STD ERR            .311      STD DEV          2.564
VARIANCE          6.577      KURTOSIS          -.391      SKEWNESS        -1.026
MINIMUM           1.000      MAXIMUM          14.000      SUM            539.000
C.V. PCT         32.353      .95 C.I.          7.305            TO         8.547

VALID CASES        68        MISSING CASES      0

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VARIABLE  ERRORS      AVERAGE NO. OF ERRORS PER LESSON

MEAN               .491      STD ERR            .074      STD DEV           .609
VARIANCE           .371      KURTOSIS         15.974      SKEWNESS         3.250
MINIMUM                      MAXIMUM           4.000      SUM             33.390
C.V. PCT        123.967      .95 C.I.           .344            TO          .638

VALID CASES        68        MISSING CASES      0

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STUDENT PROFILES: DESCRIPTIVE DATA FOR 1ST 10 WEEKS       SESSION B

FILE   NONAME   (CREATION DATE =  19 NOV 80)


VARIABLE  LESSONS     TOTAL NUMBER OF LESSONS COMPLETED

MEAN              7.743       STD ERR          .306       STD DEV          2.633
VARIANCE          6.933       KURTOSIS        -.647       SKEWNESS         -.837
MINIMUM           2.000       MAXIMUM        13.000       SUM            573.000
C.V. PCT         34.005       .95 C.I.        7.133             TO         8.353

VALID CASES         74        MISSING CASES      0

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VARIABLE  ERRORS      AVERAGE NO. OF ERRORS PER LESSON

MEAN               .594       STD ERR          .076       STD DEV           .650
VARIANCE           .423       KURTOSIS        5.667       SKEWNESS         2.257
MINIMUM              0        MAXIMUM         3.250       SUM             43.940
C.V. PCT        109.494       .95 C.I.         .443             TO          .744

VALID CASES         74        MISSING CASES      0


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STUDENT PROFILES: DESCRIPTIVE DATA FOR 1ST 10 WEEKS       SESSION C

FILE   NONAME   (CREATION DATE =  19 NOV 80)

VARIABLE  LESSONS     TOTAL NUMBER OF LESSONS COMPLETED

MEAN              7.714       STD ERR          .458       STD DEV          2.707
VARIANCE          7.328       KURTOSIS        -.333       SKEWNESS         -.943
MINIMUM           2.000       MAXIMUM        14.000       SUM            270.000
C.V. PCT         35.097       .95 C.I.        6.784             TO         8.644

VALID CASES         35        MISSING CASES      0

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VARIABLE  ERRORS      AVERAGE NO. OF ERRORS PER LESSON

MEAN              1.035       STD ERR          .162       STD DEV           .956
VARIANCE           .915       KURTOSIS        3.363       SKEWNESS         1.564
MINIMUM              0        MAXIMUM         4.400       SUM             36.226
C.V. PCT         92.364       .95 C.I.         .706             TO         1.365

VALID CASES         35        MISSING CASES      0


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STUDENT PROFILES: DESCRIPTIVE DATA FOR 1ST 10 WEEKS        SESSION D

FILE    NONAME    (CREATION DATE =  19 NOV 80)

VARIABLE  LESSONS     TOTAL NUMBER OF LESSONS COMPLETED

MEAN              7.237      STD ERR          .482      STD DEV         2.972
VARIANCE          8.834      KURTOSIS       -1.275      SKEWNESS        -.303
MINIMUM           2.000      MAXIMUM        10.000      SUM           275.000
C.V. PCT         41.071      .95 C.I.        6.260             TO       8.214

VALID CASES          38      MISSING CASES      0

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VARIABLE  ERRORS      AVERAGE NO. OF ERRORS PER LESSON

MEAN              1.039      STD ERR          .161      STD DEV          .991
VARIANCE           .982      KURTOSIS         .633      SKEWNESS        1.032
MINIMUM               0      MAXIMUM         3.650      SUM            39.478
C.V. PCT         95.380      .95 C.I.         .715             TO       1.364

VALID CASES          38      MISSING CASES      0

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STUDENT PROFILES: DESCRIPTIVE DATA FOR 1ST 10 WEEKS        SESSION X

FILE    NONAME    (CREATION DATE =  19 NOV 80)

VARIABLE  LESSONS     TOTAL NUMBER OF LESSONS COMPLETED

MEAN              8.259      STD ERR          .452      STD DEV         2.347
VARIANCE          5.507      KURTOSIS        -.784      SKEWNESS        -.935
MINIMUM           4.000      MAXIMUM        12.000      SUM           223.000
C.V. PCT         28.415      .95 C.I.        7.331             TO       9.188

VALID CASES          27      MISSING CASES      0

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VARIABLE  ERRORS      AVERAGE NO. OF ERRORS PER LESSON

MEAN              1.568      STD ERR          .259      STD DEV         1.346
VARIANCE          1.812      KURTOSIS         .658      SKEWNESS        1.118
MINIMUM               0      MAXIMUM         4.957      SUM            42.340
C.V. PCT         85.839      .95 C.I.        1.036             TO       2.101

VALID CASES          27      MISSING CASES      0

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STUDENT PROFILES: DESCRIPTIVE DATA FOR 1ST 10 WEEKS      SESSION Y

FILE    NONAME    (CREATION DATE =  19 NOV 80)

VARIABLE  LESSONS     TOTAL NUMBER OF LESSONS COMPLETED

MEAN          6.143     STD ERR         .628     STD DEV         2.349
VARIANCE      5.516     KURTOSIS      -1.066     SKEWNESS         .549
MINIMUM       3.000     MAXIMUM       10.000     SUM            86.000
C.V. PCT     38.235     .95 C.I.       4.787          TO         7.499

VALID CASES      14     MISSING CASES      0

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VARIABLE  ERRORS      AVERAGE NO. OF ERRORS PER LESSON

MEAN          2.829     STD ERR         .389     STD DEV         1.456
VARIANCE      2.120     KURTOSIS       -.150     SKEWNESS         .418
MINIMUM        .600     MAXIMUM        5.930     SUM            39.610
C.V. PCT     51.464     .95 C.I.       1.989          TO         3.670

VALID CASES      14     MISSING CASES      0

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STUDENT PROFILES: DESCRIPTIVE DATA FOR 1ST 10 WEEKS      SESSION Z

FILE    NONAME    (CREATION DATE =  19 NOV 80)

VARIABLE  LESSONS     TOTAL NUMBER OF LESSONS COMPLETED

MEAN          5.000     STD ERR        2.000     STD DEV         3.464
VARIANCE     12.000     KURTOSIS           0     SKEWNESS        1.732
MINIMUM       3.000     MAXIMUM        9.000     SUM            15.000
C.V. PCT     69.282     .95 C.I.      -3.605          TO        13.605

VALID CASES       3     MISSING CASES      0

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VARIABLE  ERRORS      AVERAGE NO. OF ERRORS PER LESSON

MEAN          1.667     STD ERR         .928     STD DEV         1.607
VARIANCE      2.583     KURTOSIS           0     SKEWNESS        1.545
MINIMUM        .500     MAXIMUM        3.500     SUM             5.000
C.V. PCT     96.437     .95 C.I.      -2.325          TO         5.659

VALID CASES       3     MISSING CASES

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STUDENT PROFILES: DESCRIPTIVE DATA FOR 1ST 10 WEEKS     TOTAL

FILE    NONAME   (CREATION DATE =  19 NOV 80)

VARIABLE  LESSONS     TOTAL NUMBER OF LESSONS COMPLETED

MEAN              7.700      STD ERR            .150      STD DEV          2.621
VARIANCE          6.871      KURTOSIS          -.723      SKEWNESS         -.786
MINIMUM           1.000      MAXIMUM          10.000      SUM           2364.000
C.V. PCT         34.040      .95 C.I.          7.406             TO        7.995

VALID CASES       307        MISSING CASES       0

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VARIABLE  ERRORS      AVERAGE NO. OF ERRORS PER LESSON

MEAN               .859      STD ERR            .058      STD DEV          1.011
VARIANCE          1.021      KURTOSIS          4.599      SKEWNESS         1.990
MINIMUM               0      MAXIMUM           5.950      SUM            263.790
C.V. PCT        117.618      .95 C.I.           .746             TO         .973

VALID CASES       307        MISSING CASES       0

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STUDENT PROFILES--DESCRIPTIVE DATA FOR 2ND TEN WEEKS

FILE    NONAME   (CREATION DATE =  19 NOV 80)

VARIABLE  LESSONS     TOTAL NUMBER OF LESSONS COMPLETED

MEAN              8.158      STD ERR            .364      STD DEV          2.241
VARIANCE          5.024      KURTOSIS           .055      SKEWNESS        -1.270
MINIMUM           2.000      MAXIMUM          10.000      SUM            310.000
C.V. PCT         27.455      .95 C.I.          7.516             TO        8.789

VALID CASES       38         MISSING CASES       0

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VARIABLE  ERRORS      AVERAGE NO. OF ERRORS PER LESSON

MEAN              1.431      STD ERR            .282      STD DEV          1.739
VARIANCE          3.023      KURTOSIS          4.215      SKEWNESS         2.048
MINIMUM               0      MAXIMUM           7.140      SUM             54.370
C.V. PCT        121.521      .95 C.I.           .859             TO        2.002

VALID CASES       38         MISSING CASES       0

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DISTRIBUTION OF PRE- AND POSTTEST SCORES BY NUMBER OF LESSONS COMPLETED — ITBS READING GRADE EQUIVALENT SCORES.

```
1980 AT-HOME PROGRAM -- DISTRIBUTION OF SCORES BY NUMBER OF LESSONS -- 1 OR 2

FREQUENCY DISTRIBUTION FOR VARIABLE # 1 (PRETEST                 )

                        RELATIVE  ADJUSTED  CUMULATIVE
             ABSOLUTE     FREQ      FREQ       FREQ
   CODE        FREQ      (PCT.)    (PCT.)     (PCT.)

   1.30         1.        25.0      25.0       25.0

   1.40         1.        25.0      25.0       50.0

   2.70         1.        25.0      25.0       75.0

   6.00         1.        25.0      25.0      100.0

  TOTAL         4.       100.0     100.0

VALID CASES=     4
MISSING CASES=     0

MEAN=     2.8500          VARIANCE=     4.8167
STD. DEV=     2.1947      STD. ERR=     1.0973
MAXIMUM=     6.0000       MINIMUM=     1.3000
RANGE=     5.7000
```

```
FREQUENCY DISTRIBUTION FOR VARIABLE # 2 (POSTTEST

                        RELATIVE  ADJUSTED  CUMULATIVE
             ABSOLUTE     FREQ      FREQ       FREQ
   CODE        FREQ      (PCT.)    (PCT.)     (PCT.)

   1.20         1.        25.0      25.0       25.0

   2.10         1.        25.0      25.0       50.0

   2.70         1.        25.0      25.0       75.0

   6.30         1.        25.0      25.0      100.0

  TOTAL         4.       100.0     100.0

VALID CASES=     4
MISSING CASES=     0

MEAN=     3.0750          VARIANCE=     5.0025
STD. DEV=     2.2366      STD. ERR=     1.1183
MAXIMUM=     6.3000       MINIMUM=     1.2000
RANGE=     6.1000
```

```
1980 AT-HOME PROGRAM -- DISTRIBUTION OF SCORES BY NUMBER OF LESSONS -- 3 OR 4

FREQUENCY DISTRIBUTION FOR VARIABLE # 1 (PRETEST              )

                           RELATIVE  ADJUSTED  CUMULATIVE
              ABSOLUTE       FREQ      FREQ       FREQ
   CODE         FREQ        (PCT.)    (PCT.)     (PCT.)

   0.60          1.           4.5       4.5        4.5

   1.10          1.           4.5       4.5        9.1

   1.20          1.           4.5       4.5       13.6

   1.40          1.           4.5       4.5       18.2

   1.50          1.           4.5       4.5       22.7

   1.70          1.           4.5       4.5       27.3

   2.00          2.           9.1       9.1       36.4

   2.30          2.           9.1       9.1       45.5

   2.40          1.           4.5       4.5       50.0

   2.50          3.          13.6      13.6       63.6

   3.70          2.           9.1       9.1       72.7

   3.90          1.           4.5       4.5       77.3

   4.50          1.           4.5       4.5       81.8

   4.70          1.           4.5       4.5       86.4

   4.80          1.           4.5       4.5       90.9

   5.30          1.           4.5       4.5       95.5

   6.20          1.           4.5       4.5      100.0

  TOTAL         22.         100.0     100.0

VALID CASES=   22
MISSING CASES=    0

MEAN=      2.8545          VARIANCE=      2.3064
STD. DEV=      1.5187      STD. ERR=      0.3238
MAXIMUM=     6.2000        MINIMUM=     0.6000
RANGE=     6.6000
```

```
1980 AT-HOME PROGRAM -- DISTRIBUTION OF SCORES BY NUMBER OF LESSONS -- 3 OR 4

FREQUENCY DISTRIBUTION FOR VARIABLE # 2 (POSTTEST                    )

                          RELATIVE  ADJUSTED  CUMULATIVE
              ABSOLUTE      FREQ      FREQ       FREQ
   CODE         FREQ       (PCT.)    (PCT.)     (PCT.)

   1.30          1.          4.5       4.5        4.5
   1.40          1.          4.5       4.5        9.1
   1.70          2.          9.1       9.1       18.2
   1.80          1.          4.5       4.5       22.7
   1.90          1.          4.5       4.5       27.3
   2.10          2.          9.1       9.1       36.4
   2.20          1.          4.5       4.5       40.9
   2.40          3.         13.6      13.6       54.5
   2.70          1.          4.5       4.5       59.1
   3.20          1.          4.5       4.5       63.6
   3.50          1.          4.5       4.5       68.2
   3.60          2.          9.1       9.1       77.3
   4.30          1.          4.5       4.5       81.8
   4.90          1.          4.5       4.5       86.4
   5.10          1.          4.5       4.5       90.9
   5.20          1.          4.5       4.5       95.5
   7.00          1.          4.5       4.5      100.0

  TOTAL         22.        100.0     100.0

VALID CASES=    22
MISSING CASES=    0

MEAN=      3.0227           VARIANCE=     2.2123
STD. DEV=     1.4874        STD. ERR=     0.3171
MAXIMUM=     7.0000         MINIMUM=     1.3000
RANGE=     6.7000
```

```
1980 AT-HOME PROGRAM -- DISTRIBUTION OF SCORES BY NUMBER OF LESSONS -- 5 OR 6
FREQUENCY DISTRIBUTION FOR VARIABLE # 1 (PRETEST                    )

                          RELATIVE  ADJUSTED  CUMULATIVE
              ABSOLUTE      FREQ      FREQ       FREQ
   CODE         FREQ       (PCT.)    (PCT.)     (PCT.)

   1.00          2.         11.8      11.8       11.8
   1.10          2.         11.8      11.8       23.5
   1.20          1.          5.9       5.9       29.4
   1.30          2.         11.8      11.8       41.2
   1.40          1.          5.9       5.9       47.1
   1.70          1.          5.9       5.9       52.9
   2.20          1.          5.9       5.9       58.8
   3.00          2.         11.8      11.8       70.6
   3.10          1.          5.9       5.9       76.5
   3.70          2.         11.8      11.8       88.2
   4.40          1.          5.9       5.9       94.1
   4.90          1.          5.9       5.9      100.0
  TOTAL         17.        100.0     100.0

VALID CASES=    17
MISSING CASES=     0

MEAN=     2.3000          VARIANCE=     1.7100
STD. DEV=     1.3077      STD. ERR=     0.3172
MAXIMUM=     4.9000       MINIMUM=     1.0000
RANGE=     4.9000
```

```
1980 AT-HOME PROGRAM -- DISTRIBUTION OF SCORES BY NUMBER OF LESSONS -- 5 OR 6

FREQUENCY DISTRIBUTION FOR VARIABLE # 2 (POSTTEST                    )

                          RELATIVE  ADJUSTED  CUMULATIVE
               ABSOLUTE     FREQ      FREQ      FREQ
   CODE          FREQ      (PCT.)    (PCT.)    (PCT.)

   0.80           1.         5.9       5.9.      5.9

   1.10           1.         5.9       5.9      11.8

   1.20           1.         5.9       5.9      17.6

   1.30           2.        11.8      11.8      29.4

   1.60           2.        11.8      11.8      41.2

   1.90           1.         5.9       5.9      47.1

   2.00           1.         5.9       5.9      52.9

   2.30           1.         5.9       5.9      58.8

   2.70           1.         5.9       5.9      64.7

   3.50           1.         5.9       5.9      70.6

   3.60           1.         5.9       5.9      76.5

   4.30           2.        11.8      11.8      88.2

   4.40           1.         5.9       5.9      94.1

   4.70           1.         5.9       5.9     100.0

  TOTAL          17.       100.0     100.0

VALID CASES=    17
MISSING CASES=     0

MEAN=      2.5059            VARIANCE=      1.8042
STD. DEV=     1.3433         STD. ERR=     0.3258
MAXIMUM=     4.7000          MINIMUM=     0.8000
RANGE=     4.9000
```

```
1980 AT-HOME PROGRAM -- DISTRIBUTION OF SCORES BY NUMBER OF LESSONS -- 7 OF 8

FREQUENCY DISTRIBUTION FOR VARIABLE # 1 (PRETEST                   )

                         RELATIVE  ADJUSTED  CUMULATIVE
             ABSOLUTE      FREQ      FREQ      FREQ
   CODE        FREQ      (PCT.)    (PCT.)     (PCT.)

   1.00         1.         3.7       3.7        3.7
   1.10         1.         3.7       3.7        7.4
   1.20         3.        11.1      11.1       18.5
   1.40         1.         3.7       3.7       22.2
   1.50         2.         7.4       7.4       29.6
   1.60         2.         7.4       7.4       37.0
   1.70         1.         3.7       3.7       40.7
   1.80         2.         7.4       7.4       48.1
   1.90         3.        11.1      11.1       59.3
   2.00         2.         7.4       7.4       66.7
   2.50         3.        11.1      11.1       77.8
   3.10         1.         3.7       3.7       81.5
   3.40         1.         3.7       3.7       85.2
   3.50         1.         3.7       3.7       88.9
   4.70         1.         3.7       3.7       92.6
   5.60         1.         3.7       3.7       96.3
   6.80         1.         3.7       3.7      100.0

  TOTAL        27.       100.0     100.0

VALID CASES=    27
MISSING CASES=     0

MEAN=      2.3296           VARIANCE=      1.9860
STD. DEV=     1.4093        STD. ERR=     0.2712
MAXIMUM=     6.8000         MINIMUM=     1.0000
RANGE=    6.8000
```

```
1980 AT-HOME PROGRAM -- DISTRIBUTION OF SCORES BY NUMBER OF LESSONS -- 7 OR 8

FREQUENCY DISTRIBUTION FOR VARIABLE # 2 (POSTTEST                        )

                          RELATIVE  ADJUSTED  CUMULATIVE
              ABSOLUTE      FREQ      FREQ       FREQ
   CODE         FREQ       (PCT.)    (PCT.)     (PCT.)

   1.10          1.          3.7       3.7        3.7
   1.60          2.          7.4       7.4       11.1
   1.70          2.          7.4       7.4       18.5
   1.80          4.         14.8      14.8       33.3
   1.90          1.          3.7       3.7       37.0
   2.10          3.         11.1      11.1       48.1
   2.20          2.          7.4       7.4       55.6
   2.30          2.          7.4       7.4       63.0
   2.40          2.          7.4       7.4       70.4
   2.80          1.          3.7       3.7       74.1
   2.90          1.          3.7       3.7       77.8
   3.10          2.          7.4       7.4       85.2
   3.90          1.          3.7       3.7       88.9
   5.30          1.          3.7       3.7       92.6
   6.10          1.          3.7       3.7       96.3
   6.70          1.          3.7       3.7      100.0

  TOTAL         27.        100.0     100.0

VALID CASES=    27
MISSING CASES=     0

MEAN=       2.6222          VARIANCE=      1.8810
STD. DEV=       1.3715      STD. ERR=      0.2639
MAXIMUM=        6.7000      MINIMUM=       1.1000
RANGE=      6.6000
```

1980 AT-HOME PROGRAM -- DISTRIBUTION OF SCORES BY NUMBER OF LESSONS -- 9 OR 10

FREQUENCY DISTRIBUTION FOR VARIABLE # 1 (PRETEST)

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT.)	ADJUSTED FREQ (PCT.)	CUMULATIVE FREQ (PCT.)
0.50	2.	2.9	2.9	2.9
0.80	1.	1.4	1.4	4.3
0.90	2.	2.9	2.9	7.2
1.00	1.	1.4	1.4	8.7
1.10	3.	4.3	4.3	13.0
1.20	2.	2.9	2.9	15.9
1.30	4.	5.8	5.8	21.7
1.40	2.	2.9	2.9	24.6
1.60	3.	4.3	4.3	29.0
1.70	3.	4.3	4.3	33.3
1.80	4.	5.8	5.8	39.1
1.90	4.	5.8	5.8	44.9
2.00	3.	4.3	4.3	49.3
2.20	3.	4.3	4.3	53.6
2.30	3.	4.3	4.3	58.0

```
  2.50          3.        4.3        4.3        62.3
  2.60          1.        1.4        1.4        63.8
  2.70          1.        1.4        1.4        65.2
  2.90          1.        1.4        1.4        66.7
  3.00          2.        2.9        2.9        69.6
  3.50          4.        5.8        5.8        75.4
  3.60          1.        1.4        1.4        76.8
  3.90          2.        2.9        2.9        79.7
  4.00          2.        2.9        2.9        82.6
  4.20          2.        2.9        2.9        85.5
  4.30          2.        2.9        2.9        88.4
  4.60          2.        2.9        2.9        91.3
  4.70          3.        4.3        4.3        95.7
  5.10          1.        1.4        1.4        97.1
  5.50          1.        1.4        1.4        98.6
  6.80          1.        1.4        1.4       100.0
 TOTAL         69.      100.0      100.0

VALID CASES=    69
MISSING CASES=     0

MEAN=      2.5406            VARIANCE=      1.8921
STD. DEV=      1.3756        STD. ERR=      0.1656
MAXIMUM=     6.8000          MINIMUM=     0.5000
RANGE=     7.3000
```

```
1980 AT-HOME PROGRAM -- DISTRIBUTION OF SCORES BY NUMBER OF LESSONS -- 9 OR 10

FREQUENCY DISTRIBUTION FOR VARIABLE # 2 (POSTTEST                    )

                        RELATIVE  ADJUSTED  CUMULATIVE
           ABSOLUTE       FREQ      FREQ       FREQ
  CODE       FREQ        (PCT.)    (PCT.)     (PCT.)

  0.90        1.          1.4       1.4        1.4
  1.00        1.          1.4       1.4        2.9
  1.10        2.          2.9       2.9        5.8
  1.20        3.          4.3       4.3       10.1
  1.30        1.          1.4       1.4       11.6
  1.40        2.          2.9       2.9       14.5
  1.50        3.          4.3       4.3       18.8
  1.60        4.          5.8       5.8       24.6
  1.70        4.          5.8       5.8       30.4
  1.80        4.          5.8       5.8       36.2
  1.90        2.          2.9       2.9       39.1
  2.00        1.          1.4       1.4       40.6
  2.30        6.          8.7       8.7       49.3
  2.40        3.          4.3       4.3       53.6
  2.50        2.          2.9       2.9       56.5
  2.60        3.          4.3       4.3       60.9
  2.90        1.          1.4       1.4       62.3
  3.00        1.        1.4        1.4       63.8
  3.10        2.        2.9        2.9       66.7
  3.20        2.        2.9        2.9       69.6
  3.40        2.        2.9        2.9       72.5
  3.60        3.        4.3        4.3       76.8
  4.00        1.        1.4        1.4       78.3
  4.10        1.        1.4        1.4       79.7
  4.40        1.        1.4        1.4       81.2
  4.50        1.        1.4        1.4       82.6
  4.70        2.        2.9        2.9       85.5
  4.80        1.        1.4        1.4       87.0
  4.90        1.        1.4        1.4       88.4
  5.00        1.        1.4        1.4       89.9
  5.10        2.        2.9        2.9       92.8
  5.40        1.        1.4        1.4       94.2
  5.80        1.        1.4        1.4       95.7
  5.90        2.        2.9        2.9       98.6
  7.30        1.        1.4        1.4      100.0

 TOTAL       69.      100.0      100.0

VALID CASES=    69
MISSING CASES=     0

MEAN=     2.8116          VARIANCE=      2.1872
STD. DEV=     1.4789      STD. ERR=      0.1780
MAXIMUM=     7.3000       MINIMUM=     0.9000
RANGE=     7.4000
```

Attachment C-4
(Page 1 of 5)

Variable	Description
1	Was posttest ITBS reading total grade equivalent.
2	Was pretest ITBS reading total grade equivalent.
3	Was pretest ITBS reading total grade equivalent if the student completed 1-2 lessons; 0, otherwise.
4	Was pretest ITBS reading total grade equivalent if the student completed 3-4 lessons; 0, otherwise.
5	Was pretest ITBS reading total grade equivalent if the student completed 5-6 lessons; 0, otherwise.
6	Was pretest ITBS reading total grade equivalent if the student completed 7-8 lesson; 0, otherwise.
7	Was pretest ITBS reading total grade equivalent if the student completed 9-10 lessons; 0, otherwise.
8	Was 1 if the student completed 1-2 lessons; 0, otherwise.
9	Was 1 if the student completed 3-4 lessons; 0, otherwise.
10	Was 1 if the student completed 5-6 lessons; 0, otherwise.
11	Was 1 if the student completed 7-8 lessons; 0, otherwise.
12	Was 1 if the student completed 9-10 lessons; 0, otherwise.

```
    *** OUTPUT FRCM PROGRAM REGRAN ***

ALL GRADES -- AT HCME PROGRAM 12/80 -- # LESSCN VS ACHIEV. -- READING TOTAL G.E.

PARAMETERS
CCL  1- 5 =     12
CCL  6-1C =    139
CCL 11-15 =      3
COL 16-20 =      2
CCL 21-25 =      1
```

```
INTERCORRELATION ANALYSIS.

MEANS         1         2         3         4         5         6         7         8         9        10
           2.7784    2.5289    0.0820    0.4518    0.2813    0.4525    1.2612    0.0288    0.1583    0.1223

MEANS        11        12
           0.1942    0.4964


SIGMAS        1         2         3         4         5         6         7         8         9        10
           1.4485    1.4072    0.5753    1.1975    0.8745    1.1049    1.5935    0.1672    0.3650    0.3276

SIGMAS       11        12
           0.3956    0.5000


R MATRIX      1         2         3         4         5         6         7         8         9        10
      1    1.0000    0.9469    0.1539    0.2477    0.0933    0.1722    0.4239    0.0352    0.0731   -0.0702
      2    0.9469    1.0000    0.1609    0.2941    0.1077    0.1810    0.4194    0.0393    0.1004   -0.0607
      3    0.1539    0.1609    1.0000   -0.0538   -0.0459   -0.0584   -0.1128    0.8282   -0.0619   -0.0532
      4    0.2477    0.2941   -0.0538    1.0000   -0.1214   -0.1545   -0.2986   -0.0649    0.8701   -0.1408
      5    0.0933    0.1077   -0.0459   -0.1214    1.0000   -0.1317   -0.2546   -0.0554   -0.1395    0.8617
      6    0.1722    0.1810   -0.0584   -0.1545   -0.1317    1.0000   -0.3241   -0.0705   -0.1776   -0.1529
      7    0.4239    0.4194   -0.1129   -0.2986   -0.2546   -0.3241    1.0000   -0.1362   -0.3432   -0.2954
      8    0.0352    0.0393    0.8282   -0.0649   -0.0554   -0.0705   -0.1362    1.0000   -0.0746   -0.0643
      9    0.0731    0.1004   -0.0618    0.8701   -0.1395   -0.1776   -0.3432   -0.0746    1.0000   -0.1619
     10   -0.0702   -0.0607   -0.0532   -0.1408    0.8617   -0.1529   -0.2954   -0.0643   -0.1619    1.0000
     11   -0.0529   -0.0695   -0.0700   -0.1852   -0.1579    0.8341   -0.3886   -0.0845   -0.2129   -0.1833
```

```
R MATRIX          11          12

    1          -0.0529      0.0227

    2          -0.0695      0.0083

    3          -0.0700     -0.1415

    4          -0.1852     -0.3746

    5          -0.1579     -0.3194

    6           0.8341     -0.4066

    7          -0.3886      0.7972

    8          -0.0845     -0.1709

    9          -0.2129     -0.4305

   10          -0.1833     -0.3706

   11           1.0000     -0.4375

   12          -0.4875      1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3-12

R = 0.9481      RSQ = 0.8989          62 ITERATIONS.

 V       BETA        B
 3     0.3874     0.9753
 4     0.7678     0.9287
 5     0.5832     0.9660
 6     0.7067     0.9264
 7     1.1199     1.0180
 8    -0.0201    -0.1743
 9    -0.0261    -0.1034
10    -0.0393    -0.1736
11     0.0        0.0
12    -0.0856    -0.2480
REG. CONST. =     0.4697
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  8-12
R = 0.9474       RSQ = 0.8975         5 ITERATIONS.

  V        BETA        B
  2      0.9487     0.9765
  8     -0.0043    -0.0371
  9     -0.0221    -0.0878
 10     -0.0163    -0.0720
 11      0.0053     0.0193
 12      0.0        0.0
REG. CONST. =       0.3290


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.8967

R = 0.9469       RSQ = 0.8967         1 ITERATIONS.

  V       BETA        B
  2     0.9469     0.9747
REG. CONST. =      0.3137

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.8989      MODEL  1
RSQ REDUCED = 0.8975      MODEL  2
DIFFERENCE =  0.0014
DFN =  4.      DFD =  129.     F-RATIO =    0.448   P = 0.7760

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.8975      MODEL  2
RSQ REDUCED = 0.8967      MODEL  3
DIFFERENCE =  0.0008
DFN =  4.      DFD =  133.     F-RATIO =    0.258   P = 0.9036
```

AT - HOME - PROGRAM

THE READING SEMINAR

OBJECTIVES AND SEQUENCING OF READING SKILLS

Session A ....Reading Level-Pre k-k..........page 1

Session A/B ....Reading Level- $K - K_1$ ....page 4

Session B ....Reading Level- $1_1 - 1_2$ ....page 7

Session C ....Reading Level- $2_1 - 2_2$ ....page 11

Session D ....Reading Level- $3_1 - 3_2$ ....page 16

Session X ....Reading Level- $4_1 - 4_2$ ....page [illegible]

Session Y ....Reading Level- $5_1 - 5_2$ ....page 23

Session Z ....Reading Level- $6_1 - 6_2$ ....page 26

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1980 Summer At-Home Reading Program

Appendix D

METROPOLITAN READINESS TESTS

Instrument Description: Metropolitan Readiness Tests.

Brief description of the instrument:

Eight tests that measure the skills needed in beginning reading and mathematics. These tests can be grouped into the following skills areas: auditory, visual, language, and quantitative. The Pre-Reading Composite contains a total of 73 items.

To whom was the instrument administered?

All first-grade students.

How many times was the instrument administered?

Once.

When was the instrument administered?

September 8-12, 1980. Make-up tests were administered the following week.

Where was the instrument administered?

In the classroom.

Who administered the instrument?

The classroom teacher.

What training did the administrators have?

Written instructions from ORE were provided to the counselor and principal. Any teacher inservice training that occurred was the responsibility of the counselor or principal on each campus.

Was the instrument administered under standardized conditions?

Standardized instructions were distributed. Individual variations in administration procedures may have occurred.

Were there problems with the instrument or the administration that might affect the validity of the data?

No known problems.

Who developed the instrument?

The 1933 version was developed by Dr. Gertrude H. Hildreth; the 1976 version was written by Joanne R. Nurss and Mary E. McGauvran.

What reliability and validity data are available on the instrument?

Reliability and validity data are available in the Teacher's Manual, Part II on pp. 24-25. This includes Kuder-Richardson Formula 20 and a split-half correlation between scores on the MRT and the MAT and the Stanford Tests.

Are there norm data available for interpreting the results?

The standardizing sample of 18,002 for the fall, 1974 was chosen to represent a variety of geographic regions, community sizes, and socio-economic levels, from 17 school districts. More detailed information can be found on pp. 21-24 of the Teacher's Manual, part II.

METROPOLITAN READINESS TESTS

Purpose

Scores from the reading skills areas of the MRT were used as a posttest measure for At-Home participants who were in kindergarten during the 1979-80 school year. These scores provided information relevant to the following evaluation questions:

Evaluation Question 1-1: Were the objectives of the At-Home Program met?

Information Need 2: Did the program meet its achievement objective?

Procedure

Data Collection

The MRT was administered as part of the regular Systemwide Testing Program. A complete description of the procedures involved in this administration can be found in the Final Technical Report: Systemwide Evaluation (O.R.E. Publication No. 80.39). The pretest measure for all MRT analyses was the spring, 1980, administration of the Boehm Test of Basic Concepts. A complete description of the procedures involved in the administration of this test can be found in the Final Technical Report: Systemwide Evaluation (O.R.E. Publication No. 79.14).

A description of the procedures used for selecting control students can be found in Attachment D-1. Only matched pairs with both pre- and posttest scores were included in the analyses.

Data Analysis

The pretest-posttest gains of both program and control students were compared using raw scores. The following linear models were used:

Model 1: $Y = a_0U + a_1X^{(3)} + a_2X^{(4)} + a_3X^{(5)} + E$

Model 2: $Y = a_4U + a_5X^{(2)} + a_6X^{(5)} + E$

Model 3: $Y = a_7U + a_8X^{(2)} + E$

The vectors used to define the models are as follows:

Y is posttest raw score.

U is the unit vector.

$X^{(2)}$ is pretest raw score.

$X^{(3)}$ is pretest if the student was an At-Home participant; 0 otherwise.

$X^{(4)}$ is pretest if the student was a control; 0 otherwise.

$X^{(5)}$ is 1 if the student was an At-Home participant; 0 if control.

Models 1 and 2 were compared which gave a result which was the equivalent of the test for equal slopes in the analysis of covariance. Models 2 and 3 were then compared to test for equal gains. All analyses were done on the AISD computer using the EDSTAT statistical package. Program REGRAN was used for the comparisons of the linear models.

Results

Did the program meet its achievement objective?

Figure D-1 shows the results of the analysis. Inspection of this figure reveals that the achievement objective was not met at this grade level. That is, the At-Home students who were in kindergarten in 1979-80 did not make bigger achievement gains than their controls. Actual results are included as attachments to this appendix.

Measures	N	Mean Raw Score		Equal Slopes			Equal Gains		
		Pretest[a]	Posttest	df	F	p	df	F	p
Auditory Skills									
At-Home	24	37.88	17.42	1,44	<1	.81	1,45	<1	.84
Control	24	38.50	17.42						
Visual Skills									
At-Home	24	37.88	15.83	1,44	1.07	.31	1,45	<1	.45
Control	24	38.50	17.46						
Language Arts Skills									
At-Home	24	37.88	10.67		b		1,45	<1	.35
Control	24	38.50	10.75						
Prereading Composite									
At-Home	24	37.88	44.46	1,44	<1	.73	1,45	<1	.92
Control	24	38.50	45.63						

[a] Pretest is total raw score on the Boehm Test of Basic Concepts (Spring, 1980, administration).

[b] The amount of variance accounted for by the two models was virtually identical. Therefore, this test could not be meaningfully evaluated.

Figure D-1. COMPARISON OF GAINS MADE BY AT-HOME AND CONTROL STUDENTS ON MRT MEASURES.

DOCUMENTATION FORM

Data Source: At-Home Participants
(Summer, 1980)

File ID: AOZ

Date	Action Taken/Decisions	Initial
6-6-80	Match on school, grade, sex, ethnicity, achievement (i.e., ITBS Reading Tot.)	DW
"	Use grade equivalents for grades 1, 2; percentiles for grades 3, 4, 5	DW
"	If grade equivalents are not identical, hold other variables and take	DW
	closest grade equivalent (must be within 4.0 months)	
"	If two grade equivalents are equally close, choose randomly	DW
"	If no grade equivalent match can be found within 4.0 months, change sex	DW
"	If the previous step does not produce a match, hold for discussion	DW
7-11-80	Follow above steps for grades 3-5	DW
"	Choose percentile matches which maintain the 4.0 month rule (this will vary	DW
	from level to level — consult appropriate test manuals)	
7-18-80	For K students, use Boehm raw total scores	DW
"	Match within 3 points (adopt previous strategies)	DW
"	If no Boehm match can be found, change sex	DW
"	If this does not produce a match, hold for discussion	DW
8-14-80	If above steps do not produce a match, change ethnicity	DW

Comparison of Gains by At-Home Participants and Control Students.

Variable	Description
1	Fall, 1980, MRT subtest raw score (specific score varies from analysis to analysis).
2	Spring, 1980, Boehm total raw score.
3	Spring, 1980, Boehm total raw score if At-Home participant; 0, otherwise.
4	Spring, 1980, Boehm total raw score if control; 0, otherwise.
5	1 if At-Home participant; 0, if control.

```
*** OUTPUT FROM PROGRAM REGRAN ***

GRADE 1 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- VISUAL SKILLS

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     48
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1

INTERCORRELATION ANALYSIS.

MEANS              1          2          3          4          5
             16.6458    38.1875    18.9375    19.2500     0.5000

SIGMAS             1          2          3          4          5
              6.4469     5.1343    19.2748    19.5943     0.5000

R MATRIX           1          2          3          4          5

       1      1.0000     0.3419    -0.0609     0.1495    -0.1260

       2      0.3419     1.0000     0.0704     0.1927    -0.0609

       3     -0.0609     0.0704     1.0000    -0.9652     0.9825

       4      0.1495     0.1927    -0.9652     1.0000    -0.9324

       5     -0.1260    -0.0609     0.9825    -0.9324     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.3856       RSQ = 0.1487        152 ITERATIONS.

  V      BETA         B
  3    1.7817    0.5959
  4    0.8206    0.2700
  5   -1.0673  -13.7619
REG. CONST. =    7.0441
```

```
MODEL   2 M2   CRITERION =   1

PREDICTORS =   2- 2   5- 5
P =   2    RSQ = 0.1169
P =   5    RSQ = 0.1280

R = 0.3578        RSQ = 0.1280            2 ITERATIONS.

   V        BETA         B
   2     0.3355      0.4212
   5    -0.1056     -1.3617
REG. CONST. =       1.2414


MODEL   3 M3   CRITERION =   1

PREDICTORS =   2- 2
P =   2    RSQ = 0.1169

R = 0.3419        RSQ = 0.1169            1 ITERATIONS.

   V        BETA         B
   2     0.3419      0.4293
REG. CONST. =       0.2523

F-TEST   1    MODEL 1 VS MODEL 2
RSQ FULL =        0.1487        MODEL   1
RSQ REDUCED =  0.1280        MODEL   2
DIFFERENCE =   0.0207
DFN =   1.        DFD =     44.      F-RATIO =     1.071    P = 0.3071


F-TEST   2    MODEL 2 VS MODEL 3
RSQ FULL =        0.1280        MODEL   2
RSQ REDUCED =  0.1169        MODEL   3
DIFFERENCE =   0.0111
DFN =   1.        DFD =     45.      F-RATIO =     0.573    P = 0.4592
```

```
     *** OUTPUT FROM PROGRAM REGRAN ***

GRADE 1 -- AT HOME PROGRAM 12780 -- 10 WEEK VS CONTROL -- LANGUAGE ARTS SKILLS

PARAMETERS
CCL  1- 5 =      5
CCL  6-10 =     48
CCL 11-15 =      3
CCL 16-20 =      2
CCL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS              1          2          3          4          5
                10.9792    38.1875    18.9375    19.2500     0.5000

SIGMAS             1          2          3          4          5
                 2.6653     5.1343    19.2748    19.5943     0.5000

R MATRIX           1          2          3          4          5

       1         1.0000     0.5362     0.1553    -0.0123     0.0860

       2         0.5362     1.0000     0.0704     0.1927    -0.0609

       3         0.1553     0.0704     1.0000    -0.9652     0.9825

       4        -0.0123     0.1927    -0.9652     1.0000    -0.9824

       5         0.0860    -0.0609     0.9825    -0.9824     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
P =  3   RSQ = 0.0241
P =  4   RSQ = 0.3014

R = 0.5490      RSQ = 0.3014            2 ITERATIONS.

  V     BETA        B
  3    2.0998     0.2904
  4    2.0145     0.2740
  5    0.0        0.0
REG. CONST. =     0.2057
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2    RSQ = 0.2875
P =  5    RSQ = 0.3016

R = 0.5492      RSQ = 0.3016           2 ITERATIONS.

   V       BETA        B
   2     0.5434     0.2821
   5     0.1191     0.6346
REG. CONST. =     -0.1109


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2    RSQ = 0.2875

R = 0.5362      RSQ = 0.2875           1 ITERATIONS.

   V       BETA        B
   2     0.5362     0.2783
REG. CONST. =      0.3500


F-TEST  1   MODEL 2 VS MODEL 3
RSQ FULL =       0.3016      MODEL  2
RSQ REDUCED =  0.2875      MODEL  3
DIFFERENCE =   0.0141
DFN =  1.      DFD =   45.      F-RATIO =    0.910    P = 0.3473
ILF263I
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

GRADE 1 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- AUDITORY SKILLS

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     48
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1

INTERCORRELATION ANALYSIS.

MEANS                1          2          3          4          5
               17.4167    38.1875    18.9375    19.2500     0.5000

SIGMAS               1          2          3          4          5
                7.1788     5.1343    19.2748    19.5943     0.5000

R MATRIX             1          2          3          4          5

       1        1.0000     0.4393     0.0523     0.0637     0.0000

       2        0.4393     1.0000     0.0704     0.1927    -0.0609

       3        0.0523     0.0704     1.0000    -0.9652     0.9825

       4        0.0637     0.1927    -0.9652     1.0000    -0.9824

       5        0.0000    -0.0609     0.9825    -0.9824     1.0000


MODEL   1 M1   CRITERION =   1
R = 0.4413      RSQ = 0.1947            68 ITERATIONS.

   V      BETA        B
   3    1.5960     0.5944
   4    1.7472     0.6401
   5    0.1453     2.0864
REG. CONST. =     -7.2055
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.1930
P =  5   RSQ = 0.1937

R = 0.4401      RSQ = 0.1937          2 ITERATIONS.

  V       BETA        B
  2     0.4410    0.6166
  5     0.0268    0.3853
REG. CONST. =   -6.3209


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.1930

R = 0.4393      RSQ = 0.1930          1 ITERATIONS.

  V       BETA        B
  2     0.4393    0.6143
REG. CONST. =   -6.0410

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =       0.1947      MODEL  1
RSQ REDUCED = 0.1937      MODEL  2
DIFFERENCE =  0.0010
DFN =  1.       DFD =    44.     F-RATIO =    0.054    P = 0.8123


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =       0.1937      MODEL  2
RSQ REDUCED = 0.1930      MODEL  3
DIFFERENCE =  0.0007
DFN =  1.       DFD =    45.     F-RATIO =    0.040    P = 0.8365
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

GRADE 1 -- AT HOME PROGRAM 12/80 -- PROGRAM VS CONTROL STUDENTS -- 10 WEEK

PARAMETERS
CCL  1- 5 =     5
COL  6-10 =    48
CCL 11-15 =     3
CCL 16-20 =     2
CCL 21-25 =     1

INTEPCORRELATION ANALYSIS.


MEANS  .          1          2          3          4          5
            45.0417    38.1875    13.9375    19.2500     0.5000


SIGMAS            1          2          3          4          5
            13.0255     5.1343    19.2748    19.5943     0.5000


R MATRIX          1          2          3          4          5

       1     1.0000     0.5211     0.0305     0.1066    -0.0448

       2     0.5211     1.0000     0.0704     0.1927    -0.0609

       3     0.0305     0.0704     1.0000    -0.9652     0.9825

       4     0.1066     0.1927    -0.9652     1.0000    -0.9824

       5    -0.0448    -0.0609     0.9825    -0.9324     1.0000



MODEL   1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.5232       RSQ = 0.2737           90 ITERATIONS.

  V      BETA         B
  3     2.0675     1.3972
  4     1.8844     1.2527
  5    -0.2217    -5.7761
REG. CONST. =    -2.6430
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.2715
P =  5   RSQ = 0.2717

R = 0.5212      RSQ = 0.2717          2 ITERATIONS.

  V      BETA        B
  2    0.5203     1.3199
  5   -0.0131    -0.3417
REG. CONST. =    -5.1904


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.2715

R = 0.5211      RSQ = 0.2715          1 ITERATIONS.

  V      BETA        B
  2    0.5211     1.3219
REG. CONST. =    -5.4386

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =       0.2737       MODEL  1
RSQ REDUCED =  0.2717       MODEL  2
DIFFERENCE =   0.0021
DFN =  1.      DFD =   44.      F-RATIO =    0.124    P = 0.7263

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =       0.2717       MODEL  2
RSQ REDUCED =  0.2715       MODEL  3
DIFFERENCE =   0.0002
DFN =  1.      DFD =   45.      F-RATIO =    0.011    P = 0.9151
```

1980 Summer At-Home Reading Program

Appendix E

IOWA TESTS OF BASIC SKILLS, 1978 EDITION, FORM 7

Instrument Description: Iowa Tests of Basic Skills, 1978 Edition, Form 7 (ITBS)

Brief description of the instrument:

Levels 7 and 8 were given to grades 1 and 2 respectively to measure skills in the areas of Word Analysis, Vocabulary, and Reading Comprehension. ITBS levels 9-12 were administered to grades 3-5 to measure skills in the areas of Vocabulary and Reading Comprehension. Students in grades 3-5 were given the same level as they were given for the spring, 1980 administration.

To whom was the instrument administered?

All the 1980 At-Home participants, and their matched controls.

How many times was the instrument administered?

Twice. Once as a pretest and again as a posttest.

When was the instrument administered?

The pretest was administered April 15, 16, and 17, 1980. The posttest was administered the week of October 6-10 and 13-17, 1980. All tests were administered in the morning.

Where was the instrument administered?

In the schools where the participants and their controls were enrolled.

Who administered the instrument?

Most of the tests were administered by classroom teachers or counselors. On six campuses posttests were administered by ORE personnel.

What training did the administrators have?

All examiners received written instructions from ORE, including a checklist of procedures and a copy of the test manual.

Was the instrument administered under standardized conditions?

Standardized instructions were distributed. Individual variations in administration procedures may have occurred.

Were there problems with the instrument or the administration that might affect the validity of the data?

No known problems.

Who developed the instrument?

The University of Iowa. The ITBS is published by the Riverside Publishing Company (Houghton Mifflin Company).

What reliability and validity data are available on the instrument?

Reliability and validity are discussed in the publisher's technical summary.

Are there norm data available for interpreting the results?

Norm data are available in the Teacher's Guide.

IOWA TESTS OF BASIC SKILLS

Purpose

The ITBS was used to provide information relevant to the following decision questions and information needs.

Evaluation Question 1-1: Were the objectives of the At-Home Program met?

Evaluation Question 1-2: Were the number of lessons completed positively related to subsequent achievement gains?

Evaluation Question 1-3: Was the amount of extra work completed by participants positively related to subsequent achievement gains?

Evaluation Question 1-4: Did students who participated in the program in previous years make larger average gains in reading achievement than students participating for the first time?

Evaluation Question 1-5: Did younger participants make larger average gains in reading achievement than older participants?

Evaluation Question 1-6: Was there any relationship between the way in which participating families used the program materials and subsequent achievement gains?

Evaluation Question 1-7: Were the session levels used by participants appropriately matched to their entering ability levels?

Information Need 2: Did the program meet its achievement objective?

In addition, ITBS data were used to compare the achievement gains of those students who participated in the second ten-week At-Home session to the gains of their matched controls.

Evaluation Questions 1-2 and 1-7 are discussed in Appendix C of this report. Evaluation Question 1-3 could not be answered due to reasons discussed in Appendix C. Evaluation Question 1-6 could not be answered because of the lack of variability in responses to the Parent Questionnaire (see Appendix B).

Procedure

Data Collection

The pretest measure for all the analyses described in this appendix was the spring, 1980 administration of the ITBS. A complete description of the procedures involved in this administration can be found in the *Final Technical Report: Systemwide Evaluation* (O.R.E. Publication No. 79.14).

The following procedures were used in administering the ITBS as a posttest measure.

During the summer of 1980, a control student was selected for each At-Home participant. A description of the procedures used for selecting control students can be found in Attachment E-1. In order to verify that the At-Home and control students were actually in attendance at the schools indicated by district records, a tentative list of students to be tested was sent to each of the involved schools. The memo accompanying this list is reproduced in Attachment E-2. After the corrected lists were returned, new control students were selected to replace those controls whom the schools indicated were not in attendance on their campus. If an At-Home student was not in attendance, the appropriate control student was removed from the list of students to be tested.

The final lists of students to be tested, along with test materials and instructions, were sent to the schools on September 29. The directions and tester checklist for ITBS Levels 7 and 8 are reproduced in Attachment E-3; the same materials for ITBS Levels 9-11 are reproduced in Attachment E-4. Note that each student was posttested with the same ITBS level as they received for the pretest. Preslugged answer sheets were used for Level 9-11.

In responding to the initial tentative lists of students to be tested, personnel at several of the schools indicated that they did not have the resources to administer the tests themselves. Therefore, it was decided to offer assistance with test administration to those non-Title I campuses without a counselor. The two memos accompanying the test materials (one for those schools to whom assistance was not offered and another for those to whom assistance was offered) are reproduced in Attachment E-2.

Testing was conducted during the week of October 6-10 by staff selected by the affected schools. Those tests which were administered by O.R.E. personnel (i.e., the evaluation intern and two doctoral students in educational psychology hired specifically for this purpose) were conducted during the weeks of October 6-10 and October 13-17. These tests were administered at Brentwood, Lee, Pecan Springs, Winn, Wooldridge, and Dawson. After completion of the testing, a thank-you memo (reproduced in Attachment E-2) was sent to each of the involved schools.

Data Analysis

ITBS Levels 9-11 were scanned directly from the preslugged answer sheets. However, Levels 7 and 8 had to first be transcribed onto coding sheets from which cards were punched. Only matched pairs of students with both pre- and posttest scores were included in the analyses. In addition, a few tests for certain students at Levels 7 and 8 were excluded from the analyses because visual inspection of the coding sheets indicated that these tests had either not been attempted, or had been improperly marked. At Level 7, five Reading, two Vocabulary, and two Word Analysis tests were excluded; at Level 8, one Reading test was excluded.

Comparing achievement gains of At-Home participants and controls:

In order to compare gains made by At-Home participants and their matched controls, analyses equivalent to the slopes and intercepts tests in the analysis of covariance were performed using Program REGRAN of the EDSTAT package. The following linear models were used:

Model 1: $Y = a_0U + a_1X^{(3)} + a_2X^{(4)} + a_3X^{(5)} + E$

Model 2: $Y = a_4U + a_5X^{(2)} + a_6X^{(5)} + E$

Model 3: $Y = a_7U + a_8X^{(2)} + E$

The vectors used to define the models were as follows:

Y is the posttest score.

U is the unit vector.

$X^{(2)}$ is pretest score.

$X^{(3)}$ is pretest if the student was an At-Home participant; 0, otherwise.

$X^{(4)}$ is pretest if the student was a control; 0, otherwise.

$X^{(5)}$ is 1 if the student was an At-Home participant; 0, otherwise.

Models 1 and 2 were compared which gave a result which was the equivalent of the test for equal slopes; models 2 and 3 were then compared to test for equal gains. Grade equivalent scores were used in the Word Analysis, Vocabulary, Reading Comprehension, and Reading Total analyses; raw scores were used for all the skills analyses. Actual results are included as Attachments E-5 through E-15.

In addition, a similar analysis was performed to compare the gains of the 20-week participants and their matched controls. The linear models used for this analysis were identical to those described above, the vectors used to define the models were as follows:

Y is the posttest reading total grade equivalent.

U is the unit vector.

$X^{(2)}$ is pretest reading total grade equivalent.

$X^{(3)}$ is pretest reading total grade equivalent if the student was a 20-week participant; 0, otherwise.

$X^{(4)}$ is pretest reading total grade equivalent if the student was a control; 0, otherwise.

$X^{(5)}$ is 1 if the student was a 20-week participant; 0, otherwise.

The actual results are included as Attachment E-16.

Previous At-Home participation and achievement gains:

In order to compare gains made by students participating in the program for the first time and those who participated in the program in previous years, analyses equivalent to the slopes and intercepts tests in the analysis of covariance were performed using Program REGRAN of the EDSTAT package. The following linear models were used:

Model 1: $Y = a_0U + a_1X^{(3)} + a_2X^{(4)} + a_3X^{(5)} + E$

Model 2: $Y = a_4U + a_5X^{(2)} + a_6X^{(5)} + E$

Model 3: $Y + a_7U + a_8X^{(2)} + E$

The vectors used to define the models were as follows:

Y is the posttest reading total grade equivalent.

U is the unit vector.

$X^{(2)}$ is pretest reading total grade equivalent.

$X^{(3)}$ is pretest reading total grade equivalent if the student was a new participant; 0, otherwise.

$X^{(4)}$ is pretest reading total grade equivalent if the student was a repeating participant; 0, otherwise.

$X^{(5)}$ is 1 if the student was a repeating participant; 0, otherwise.

Students were identified as new or repeating participants on the basis of responses to item 5 on the Parent Questionnaire (see Appendix B in this report). Only students with both pre- and posttest scores were included in the analysis, which was conducted across grades. The actual results are included as Attachment E-17.

Participant age and achievement gains:

In order to determine whether younger participants made larger average gains than older participants, the mean grade equivalent gains for Reading Total (Grades 1-5) and Word Analysis (Grades 1, 2) were calculated. Only 10-week participants with both pre- and posttest scores were included in these calculations, the results of which are included in Attachments E-18 and E-19.

Students were then classified, by grade, as "high-gainers" (i.e., those whose gain score was above the mean gain score) or "low-gainers" (i.e., those whose gain score was below the mean gain score). Two chi-square analyses were then performed (one for Reading Total and one for Word Analysis) to test the significance of the relationship between grade level and the high-gain vs. low-gain dichotomy. Program CHICHI of the EDSTAT package was used for the analyses. The actual results are included in Attachments E-18 and E-19.

Results

Evaluation Question 1-1 (also Information Need 2): Did the program meet its achievement objective?

The achievement objective was worded as follows:

> *Participants in the Title I summer school At-Home Program will demonstrate a significantly greater increase in reading achievement than a matched group of nonparticipants from Title I eligible campuses where the At-Home summer program was carried out.*

Figures E-1 through E-3 shows the mean pre- and posttest grade equivalents for the Word Analysis, Vocabulary, and Reading Comprehension tests, broken down by grade and group (i.e., 10-week participant or control student). The significance of the mean gain for each group by grade has been evaluated by correlated t-tests. Inspection of Figures E-1 to E-3 reveals 13 of the 24 t-tests to be significant at the .05 level. Five of 13 significant gains are found in the At-Home group; eight are found in the control group. It's interesting to note the close simlarity of pre- and posttest scores for grades 1 and 2. This suggest that less stringent criteria may have been used in selecting first-grade participants than was the case for older participants, resulting in a relatively higher level of achievement among first-grade participants.

Figures E-4 through E-6 show the results of the tests for equal gains in Word Analysis, Vocabulary, and Reading Comprehension scores. Inspection of these figures reveals that, at the .05 level of significance, there is only one significant difference in the achievement gains of the At-Home participants compared to their controls. This difference is found in Reading Comprehension scores at the third grade (Figure E-6). However, this difference actually favors the control students, meaning that the control third graders achieved a larger average gain in reading comprehension than did the third-grade At-Home participants.

The overall test scores were then broken down into the specific skills measured by each test. Since the number of items measuring a given skill varied according to the ITBS level, these analyses were conducted by test level rather than grade level. Figures E-7 to E-11 show the results of the skill analyses. Inspection of these figures shows that only three of the 36 tests for equal gains were significant beyond the .05 level. In each case (Level 8: Verbs; Level 9: Modifiers and Connectors; Level 9: Facts), larger gains were achieved by the control students.

Finally, the Reading Total scores of the 20-week At-Home participants were compared to the scores of their matched controls. Figure E-12 displays the results of this analysis. There was no significant difference in the achievement gains of these two groups.

Altogether 101 slope and intercepts tests were conducted. Five of those were significant (1 slope test and 5 intercept tests), at the .05 level of significance.

The number of significant findings exactly mirrors the results to be expected with samples from identical populations; i.e., five percent of the tests were significant at the .05 level. The results provide no evidence for any positive or negative impact of the At-Home Program on student achievement.

In summary, the achievement objective of the At-Home Program was not met. That is, At-Home participants did not demonstrate gains in reading achievement beyond those of their matched controls.

Evaluation Question 1-4: Did students who participated in the program in previous years make larger gains in reading achievement than students participating for the first time?

Figure E-13 displays the results of this analysis, which indicates that students who participated in the program in previous years did not make larger gains in reading achievement than students participating for the first time.

Evaluation Question 1-5: Did younger participants make larger average gains in reading achievement than older participants?

Figures E-14 and E-15 display the results of the chi-square analyses which tested the degree of relationship between the "high-gain" and "low-gain" classification and grade level. Figure E-14 shows the results for the Word Analysis scores; Figure E-15 shows the results for the Reading Total scores. In neither case was participant age (i.e., grade level) significantly related to the type of achievement gain they made.

Group	Mean Grade Equivalent Pretest	 Posttest	Gain	N	t	df	p
Grade 1							
At-Home	1.71	1.96	0.25	42	2.23	41	.03
Control	1.79	1.82	0.03	42	.35	41	.73
Grade 2							
At-Home	1.70	1.76	0.06	21	.38	20	.71
Control	1.85	2.02	0.17	21	1.01	20	.33

Figure E-1. COMPARISON OF PRE- AND POSTTEST WORD ANALYSIS SCORES BY GRADE FOR AT-HOME AND CONTROL STUDENTS. Ten-week participants only.

	Mean Grade Equivalent						
Group	Pretest	Posttest	Gain	N	t	df	p
Grade 1							
At-Home	1.68	1.99	0.31	41	4.62	40	.0001
Control	1.60	1.89	0.29	41	3.64	40	.001
Grade 2							
At-Home	1.50	1.75	0.25	21	1.42	20	.17
Control	1.58	2.00	0.42	21	3.67	20	.002
Grade 3							
At-Home	2.58	2.71	0.13	14	.76	13	.47
Control	2.55	3.08	0.53	14	4.06	13	.002
Grade 4							
At-Home	3.64	3.64	0.00	17	.04	16	.97
Control	3.70	4.05	0.35	17	2.71	16	.01
Grade 5							
At-Home	4.48	4.83	0.35	21	2.74	20	.01
Control	4.43	4.99	0.56	21	3.27	20	.004

Figure E-2. COMPARISON OF PRE- AND POSTTEST VOCABULARY SCORES BY GRADE FOR AT-HOME AND CONTROL STUDENTS. Ten-week participants only.

Group	Mean Grade Equivalent		Gain	N	t	df	p
	Pretest	Posttest					
Grade 1							
At-Home	1.52	1.95	0.43	40	4.91	39	.0001
Control	1.67	1.88	0.21	40	2.94	39	.006
Grade 2							
At-Home	1.78	2.00	0.22	21	2.35	20	.03
Control	1.73	1.93	0.20	21	1.77	20	.09
Grade 3							
At-Home	2.81	2.73	-0.08	14	.53	13	.61
Control	2.79	3.16	0.35	14	2.78	13	.01
Grade 4							
At-Home	3.49	3.86	0.37	17	1.83	16	.08
Control	3.51	3.85	0.34	17	2.83	16	.01
Grade 5							
At-Home	4.31	4.46	0.15	21	.69	20	.50
Control	4.52	4.59	0.07	21	.34	20	.73

Figure E-3. COMPARISON OF PRE- AND POSTTEST READING COMPREHENSION SCORES BY GRADE FOR AT-HOME AND CONTROL STUDENTS. Ten-week participants only.

Groups	N	Mean Grade Equiv.		Equal Slopes			Equal Gains		
		Pretest	Posttest	df	F	p	df	F	p
Grade 1									
At-Home	42	1.71	1.96	1,80	<1	.53	1,81	1.84	.18
Control	42	1.79	1.82						
Grade 2									
At-Home	21	1.70	1.76	1,38	<1	.80	1,39	1.05	.31
Control	21	1.85	2.02						

Figure E-4. COMPARISON BY GRADE OF WORD ANALYSIS GAINS MADE BY AT-HOME AND CONTROL STUDENTS. Ten-week participants only.

		Mean Grade Equiv.		Equal Slopes			Equal Gains		
Groups	N	Pretest	Posttest	df	F	p	df	F	p
Grade 1									
At-Home	41	1.68	1.99	1,78	<1	.70	1,79	<1	.69
Control	41	1.60	1.89						
Grade 2									
At-Home	21	1.50	1.75	1,38	1.65	.20	1,39	<1	.44
Control	21	1.58	2.00						
Grade 3									
At-Home	14	2.58	2.71	1,24	1.07	.31	1,25	3.02	.09
Control	14	2.55	3.08						
Grade 4									
At-Home	17	3.64	3.64	1,30	1.67	.20	1,31	3.21	.08
Control	17	3.70	4.05						
Grade 5									
At-Home	21	4.48	4.83	1,38	<1	.60	1,39	<1	.37
Control	21	4.43	4.99						

Figure E-5. COMPARISON BY GRADE OF VOCABULARY GAINS MADE BY AT-HOME AND CONTROL STUDENTS. Ten-week participants only.

Groups	N	Mean Grade Equiv.		Equal Slopes			Equal Gains		
		Pretest	Posttest	df	F	p	df	F	p
Grade 1									
At-Home	40	1.52	1.95	1,76	2.96	.09	1,77	3.01	.09
Control	40	1.67	1.88						
Grade 2									
At-Home	21	1.78	2.00	1,38	1.95	.17	1,39	<1	.78
Control	21	1.73	1.93						
Grade 3									
At-Home	14	2.81	2.73	1,24	<1	.64	1,25	5.02	.03
Control	14	2.79	3.16						
Grade 4									
At-Home	17	3.49	3.86	1,30	2.65	.11	1,31	<1	.87
Control	17	3.51	3.85						
Grade 5									
At-Home	21	4.31	4.46		a		1,39	<1	.90
Control	21	4.52	4.59						

[a] The amount of variance accounted for by the two models was virtually identical. Therefore, this test could not be meaningfully evaluated.

Figure E-6. COMPARISON BY GRADE OF READING COMPREHENSION GAINS MADE BY AT-HOME AND CONTROL STUDENTS. Ten-week participants only.

	Skill	N	Mean Raw Score		Equal Slopes			Equal Gains		
			Pretest	Posttest	df	F	p	df	F	p
Word Analysis	Silent Letters									
	At-Home	42	1.43	1.64	1,80	2.04	.15	1,81	<1	.45
	Control	42	1.50	1.50						
	Substitutions									
	At-Home	42	15.90	17.21	1,80	1.28	.26	1,81	<1	.33
	Control	42	16.48	17.02						
	Sounds									
	At-Home	42	10.79	11.10	1,80	<1	.55	1,81	<1	.65
	Control	42	11.24	12.02						
	Rhymes									
	At-Home	42	4.62	4.90	1,80	<1	.65	1,81	<1	.38
	Control	42	4.55	4.50						
Vocabulary	Nouns									
	At-Home	41	4.95	6.49	1,78	<1	.69	1,79	<1	.92
	Control	41	4.78	6.41						
	Verbs									
	At-Home	41	5.24	5.41	1,78	<1	.56	1.79	<1	.60
	Control	41	5.15	5.17						

	Modifiers and Connectors									
	At-Home	41	2.90	3.46	1,78	<1	.76	1,79	<1	.69
	Control	41	2.66	3.92						
Reading Comprehension	Inferences									
	At-Home	40	18.30	22.70		a		1,77	2.54	.11
	Control	40	18.88	21.45						
	Facts									
	At-Home	40	14.25	17.50	1,76	<1	.79	1,77	1.90	.17
	Control	40	15.83	17.20						
	Generalization									
	At-Home	40	1.10	1.53	1,76	<1	.88	1,77	<1	.36
	Control	40	1.23	1.38						

[a] The amount of variance accounted for by the two models was virtually identical. Therefore, this test could not be meaningfully evaluated.

Figure E-7. COMPARISON BY SKILL AREA OF RAW SCORE GAINS MADE BY AT-HOME AND CONTROL STUDENTS. ITBS Level 7.

	Skill	N	Meam Raw Score		Equal Slopes			Equal Gains		
			Pretest	Posttest	df	F	p	df	F	p
Word Analysis	Silent Letters									
	At-Home	20	1.75	1.90	1,36	1.09	.30	1,37	2.37	.13
	Control	20	1.90	2.50						
	Substitutions									
	At-Home	20	3.95	4.00	1,36	<1	.84	1,37	3.02	.09
	Control	20	4.35	4.90						
	Sounds									
	At-Home	20	13.10	13.20	1,36	<1	.33	1,37	<1	.66
	Control	20	13.90	14.05						
Vocabulary	Nouns									
	At-Home	20	2.90	3.20	1,36	2.17	.15	1,36	<1	.54
	Control	20	3.45	3.80						
	Verbs									
	At-Home	20	3.40	3.50	1,36	<1	.58	1,37	4.45	.04
	Control	20	2.95	4.45						
	Modifiers and Connectors									
	At-Home	20	2.00	2.90	1,36	6.26	.02		b	
	Control	20	2.35	3.25						

Reading Comprehension									
Inferences									
At-Home	20	14.40	16.60		a		1.37	<1	.63
Control	20	14.80	16.10						
Facts									
At-Home	20	12.10	13.45	1,36	<1	.35	1,37	<1	.96
Control	20	11.25	12.95						
Generalization									
At-Home	20	1.65	1.80	1,36	2.15	.15	1,37	<1	.72
Control	20	1.65	1.95						

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[a] The amount of variance accounted for by the two models was virtually identical. Therefore, this test could not be meaningfully evaluated.

[b] The test for equal slopes was significant, indicating an interaction which precluded a meaningful test of equal gains.

Figure E-8. COMPARISON BY SKILL AREA OF RAW SCORE GAINS MADE BY AT-HOME AND CONTROL STUDENTS. ITBS Level 8.

			Mean Raw Score		Equal Slopes			Equal Gains		
	Skill	N	Pretest	Posttest	df	F	p	df	F	p
Vocabulary	Verbs									
	At-Home	18	3.28	3.61	1,32	<1	.34	1,33	2.06	.16
	Control	18	3.50	4.67						
	Nouns									
	At-Home	18	2.78	2.94	1,32	<1	.83	1,33	1.49	.23
	Control	18	2.83	3.56						
	Modifiers and Connectors									
	At-Home	18	4.83	4.78	1,32	<1	.72	1,33	5.39	.03
	Control	18	4.78	6.39						
Reading Comprehension	Generalization									
	At-Home	18	2.67	3.28	1,32	<1	.70	1,33	<1	.42
	Control	18	2.50	3.72						
	Inferences									
	At-Home	18	4.11	4.17	1,32	<1	.87	1,33	1.64	.21
	Control	18	4.50	5.06						
	Facts									
	At-Home	18	9.22	7.94	1,32	1.77	.19	1,33	8.60	.006
	Control	18	8.50	10.22						

Figure E-9. COMPARISON BY SKILL AREA OF RAW SCORE GAINS MADE BY AT-HOME AND CONTROL STUDENTS. ITBS Level 9.

			Mean Raw Score		Equal Slopes			Equal Gains		
	Skill	N	Pretest	Posttest	df	F	p	df	F	p
Vocabulary	Verbs									
	At-Home	11	6.36	6.64	1,18	<1	.87	1,19	<1	.88
	Control	11	6.09	6.55						
	Nouns									
	At-Home	11	5.18	5.55	1,18	<1	.94	1,19	<1	.83
	Control	11	5.18	5.36						
	Modifiers and Connectors									
	At-Home	11	7.45	8.45	1,18	<1	,86	1,19	<1	.72
	Control	11	7.45	8.82						
Reading Comprehension	Generalization									
	At-Home	11	4.27	5.18	1,18	<1	.38	1,19	1.70	.21
	Control	11	4.00	3.73						
	Inferences									
	At-Home	11	4.27	5.45	1,18	<1	.40	1,19	2.65	.12
	Control	11	5.64	4.45						
	Facts									
	At-Home	11	10.18	9.91	1,18	2.95	.10	1,19	<1	.60
	Control	11	10.00	10.55						

Figure E-10. COMPARISON BY SKILL AREA OF RAW SCORE GAINS MADE BY AT-HOME AND CONTROL STUDENTS. ITBS Level 10.

	Skill	N	Mean Raw Score Pretest	 Posttest	Equal Slopes df	 F	 p	Equal Gains df	 F	 p
Vocabulary	Verbs									
	At-Home	12	6.33	7.33		a		1,21	<1	.45
	Control	12	6.08	7.92						
	Nouns									
	At-Home	12	4.92	5.67	1,20	3.65	.07	1,21	<1	.90
	Control	12	4.92	5.58						
	Modifiers and Connectors									
	At-Home	12	6.42	7.58	1,20	<1	.68	1,21	1.23	.28
	Control	12	6.92	8.83						
Reading Comprehension	Generalization									
	At-Home	12	6.50	7.17	1,20	<1	.39	1,21	<1	.91
	Control	12	7.33	7.92						
	Inferences									
	At-Home	12	6.42	7.17	1,20	1.22	.28	1,21	<1	.63
	Control	12	5.67	6.00						
	Facts									
	At-Home	12	7.17	8.00	1,20	<1	.56	1,21	<1	.93
	Control	12	7.83	8.58						

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[a] The amount of variance accounted for by the two models was virtually identical. Therefore, this test could not be meaningfully evaluated.

Figure E-11. COMPARISON BY SKILL AREA OF RAW SCORE GAINS MADE BY AT-HOME AND CONTROL STUDENTS. ITBS Level 11.

Group	N	Mean Grade Equiv.		Equal Slopes			Equal Gains		
		Pretest	Posttest	df	F	p	df	F	p
20-week participants	36	2.12	2.43	1,68	1.18	.28	1,69	<1	.54
Controls	36	2.16	2.54						

Figure E-12. COMPARISON OF READING TOTAL GAINS MADE BY AT-HOME AND CONTROL STUDENTS. 20-week participants.

Group	N	Mean Grade Equiv.		Equal Slopes			Equal Gains		
		Pretest	Posttest	df	F	p	df	F	p
New Participants	161	2.39	2.67	1,186	<1	.61	1,187	<1	.68
Repeat Participants	29	2.36	2.59						

Figure E-13. COMPARISON OF READING TOTAL GAINS MADE BY NEW AND REPEATING PARTICIPANTS.

Classification		1979-80 Grade Level	
		1	2
High-Gain	n	36	14
	%	(50)	(38)
Low-Gain	n	36	23
	%	(50)	(62)

$X^2 = 1.01$, with 1 df, $p = .32$

Figure E-14. RELATIONSHIP BETWEEN GAINS IN WORD ANALYSIS SCORES AND GRADE LEVEL. Ten-week participants only; percents refer to column percents.

Classification		1979-80 Grade Level				
		1	2	3	4	5
High-Gain	n	44	19	8	12	15
	%	(61)	(51)	(33)	(46)	(58)
Low-Gain	n	28	18	16	14	11
	%	(39)	(49)	(67)	(54)	(42)

$X^2 = 6.39$, with 4 df, $p = .17$

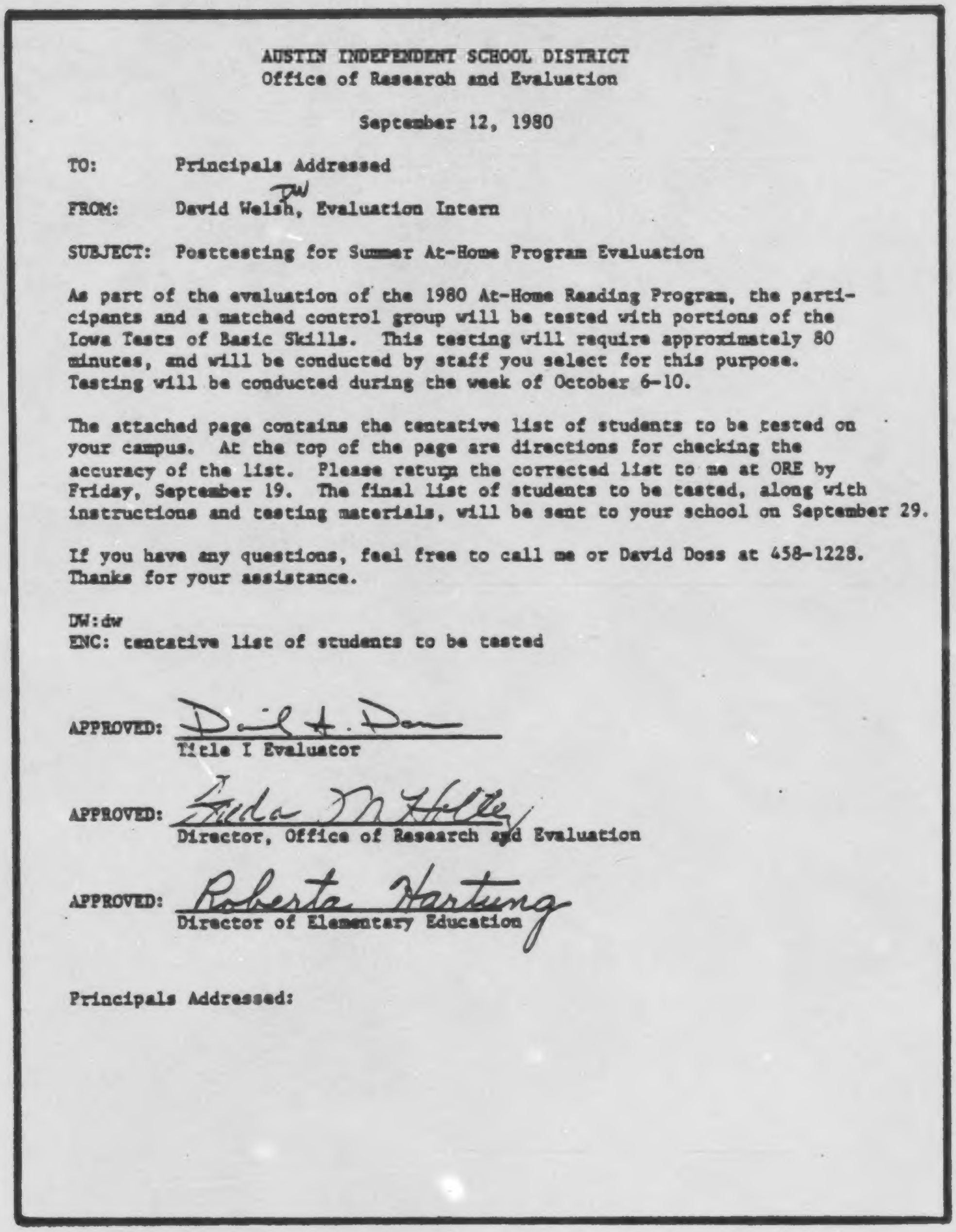
Figure E-15. RELATIONSHIP BETWEEN GAINS IN READING TOTAL SCORES AND GRADE LEVEL. Ten-week participants only; percents refer to column percents.

DOCUMENTATION FORM

Data Source: At-Home Participants (Summer, 1980)

File ID: AOZ

Date	Action Taken/Decisions	Initial
6-6-80	Match on school, grade, sex, ethnicity, achievement (i.e., ITBS Reading Tot.)	DW
"	Use grade equivalents for grades 1, 2; percentiles for grades 3, 4, 5	DW
"	If grade equivalents are not identical, hold other variables and take closest grade equivalent (must be within 4.0 months)	DW
"	If two grade equivalents are equally close, choose randomly	DW
"	If no grade equivalent match can be found within 4.0 months, change sex	DW
"	If the previous step does not produce a match, hold for discussion	DW
7-11-80	Follow above steps for grades 3-5	DW
"	Choose percentile matches which maintain the 4.0 month rule (this will vary from level to level — consult appropriate test manuals)	DW
7-18-80	For K students, use Boehm raw total scores	DW
"	Match within 3 points (adopt previous strategies)	DW
"	If no Boehm match can be found, change sex	DW
"	If this does not produce a match, hold for discussion	DW
8-14-80	If above steps do not produce a match, change ethnicity	DW



AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

September 12, 1980

TO: Principals Addressed

FROM: David Welsh, DW Evaluation Intern

SUBJECT: Posttesting for Summer At-Home Program Evaluation

As part of the evaluation of the 1980 At-Home Reading Program, the participants and a matched control group will be tested with portions of the Iowa Tests of Basic Skills. This testing will require approximately 80 minutes, and will be conducted by staff you select for this purpose. Testing will be conducted during the week of October 6-10.

The attached page contains the tentative list of students to be tested on your campus. At the top of the page are directions for checking the accuracy of the list. Please return the corrected list to me at ORE by Friday, September 19. The final list of students to be tested, along with instructions and testing materials, will be sent to your school on September 29.

If you have any questions, feel free to call me or David Doss at 458-1228. Thanks for your assistance.

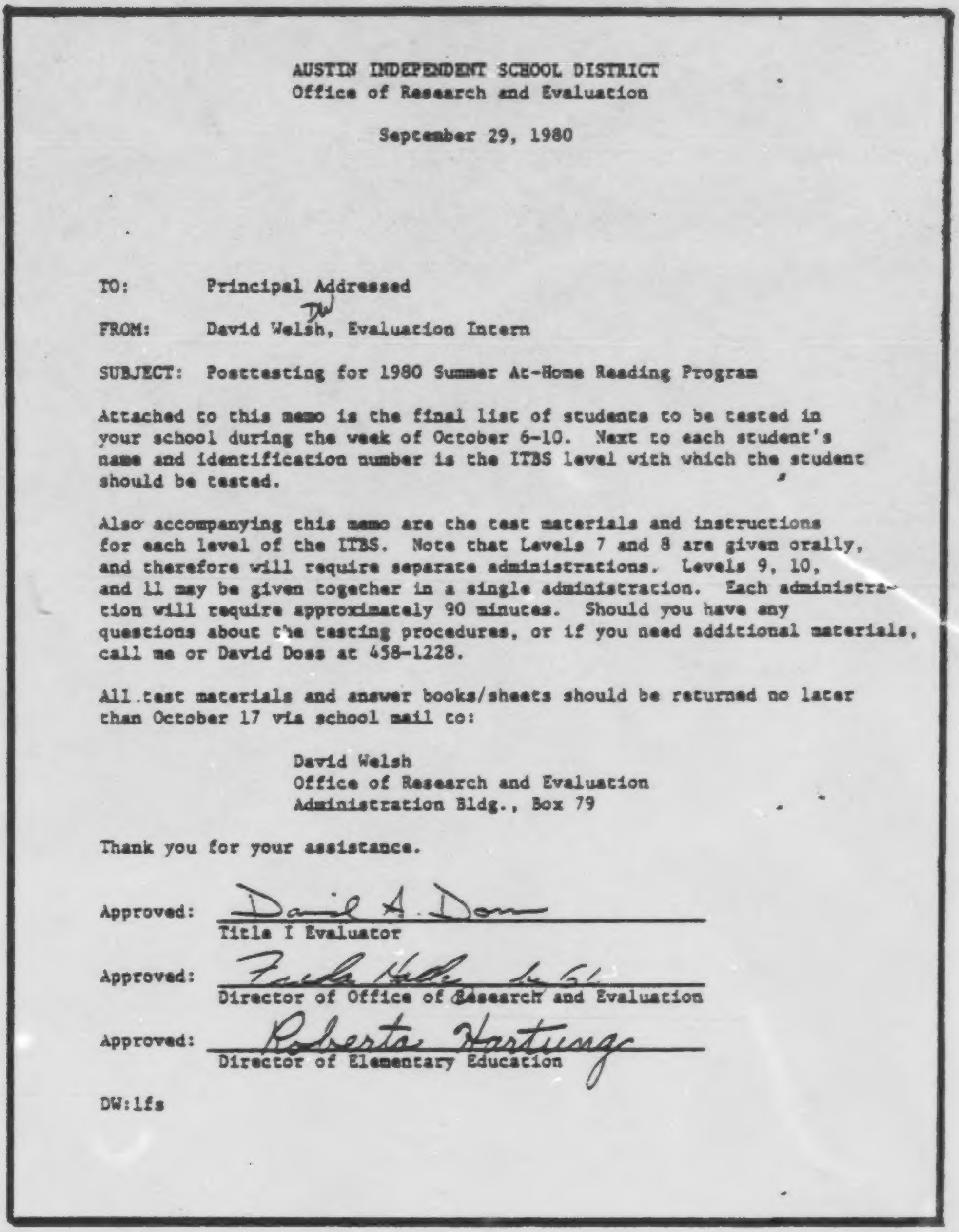
DW:dw
ENC: tentative list of students to be tested

APPROVED: David A. Doss
Title I Evaluator

APPROVED: Freda M. Holley
Director, Office of Research and Evaluation

APPROVED: Roberta Hartung
Director of Elementary Education

Principals Addressed:



AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

September 29, 1980

TO: Principal Addressed

FROM: David Welsh DW, Evaluation Intern

SUBJECT: Posttesting for 1980 Summer At-Home Reading Program

Attached to this memo is the final list of students to be tested in your school during the week of October 6-10. Next to each student's name and identification number is the ITBS level with which the student should be tested.

Also accompanying this memo are the test materials and instructions for each level of the ITBS. Note that Levels 7 and 8 are given orally, and therefore will require separate administrations. Levels 9, 10, and 11 may be given together in a single administration. Each administration will require approximately 90 minutes. Should you have any questions about the testing procedures, or if you need additional materials, call me or David Doss at 458-1228.

All test materials and answer books/sheets should be returned no later than October 17 via school mail to:

David Welsh
Office of Research and Evaluation
Administration Bldg., Box 79

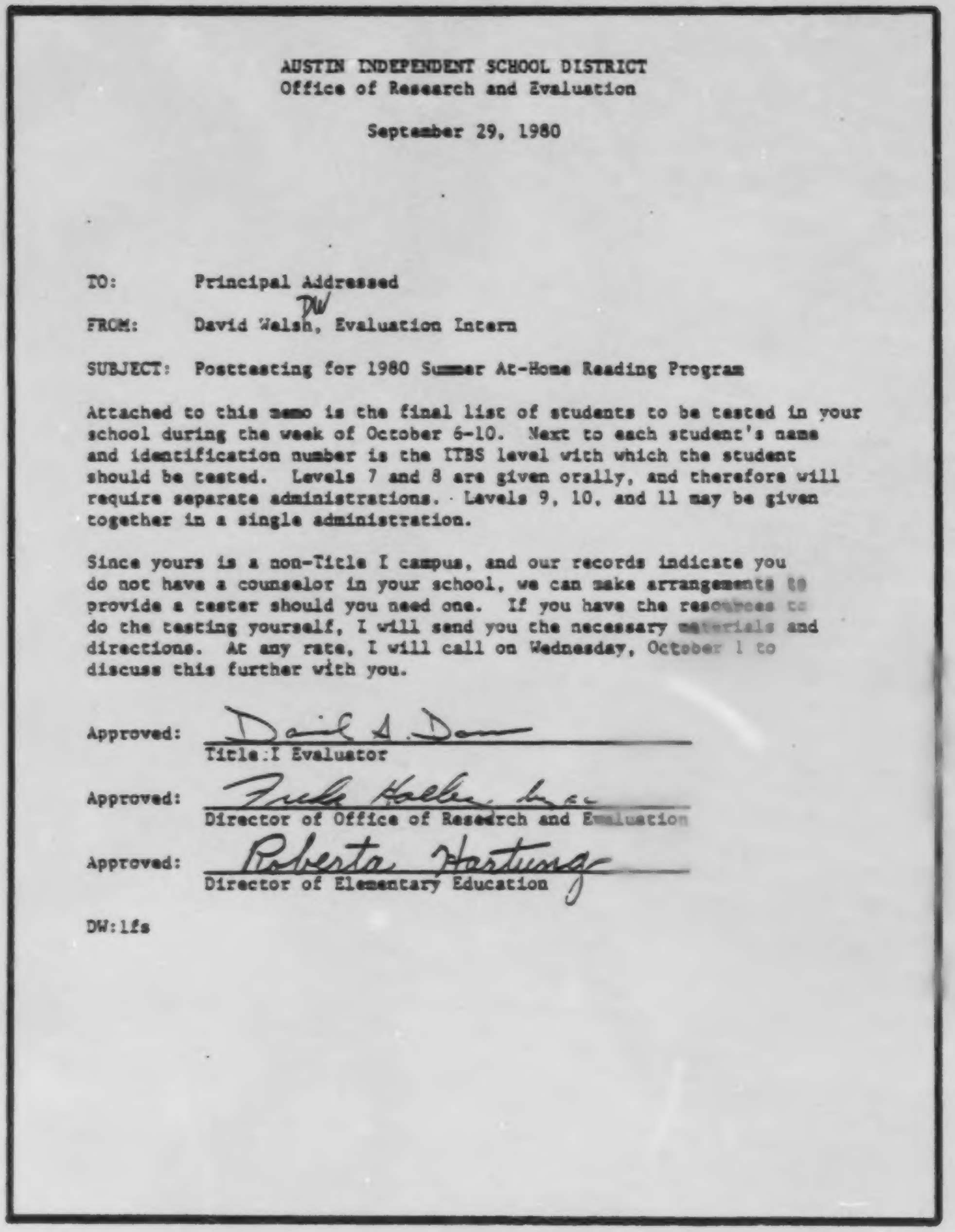
Thank you for your assistance.

Approved: David A. Doss
Title I Evaluator

Approved: Freda Holley by GL
Director of Office of Research and Evaluation

Approved: Roberta Hartung
Director of Elementary Education

DW:lfs



AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

September 29, 1980

TO: Principal Addressed

FROM: David Walsh DW, Evaluation Intern

SUBJECT: Posttesting for 1980 Summer At-Home Reading Program

Attached to this memo is the final list of students to be tested in your school during the week of October 6-10. Next to each student's name and identification number is the ITBS level with which the student should be tested. Levels 7 and 8 are given orally, and therefore will require separate administrations. Levels 9, 10, and 11 may be given together in a single administration.

Since yours is a non-Title I campus, and our records indicate you do not have a counselor in your school, we can make arrangements to provide a tester should you need one. If you have the resources to do the testing yourself, I will send you the necessary materials and directions. At any rate, I will call on Wednesday, October 1 to discuss this further with you.

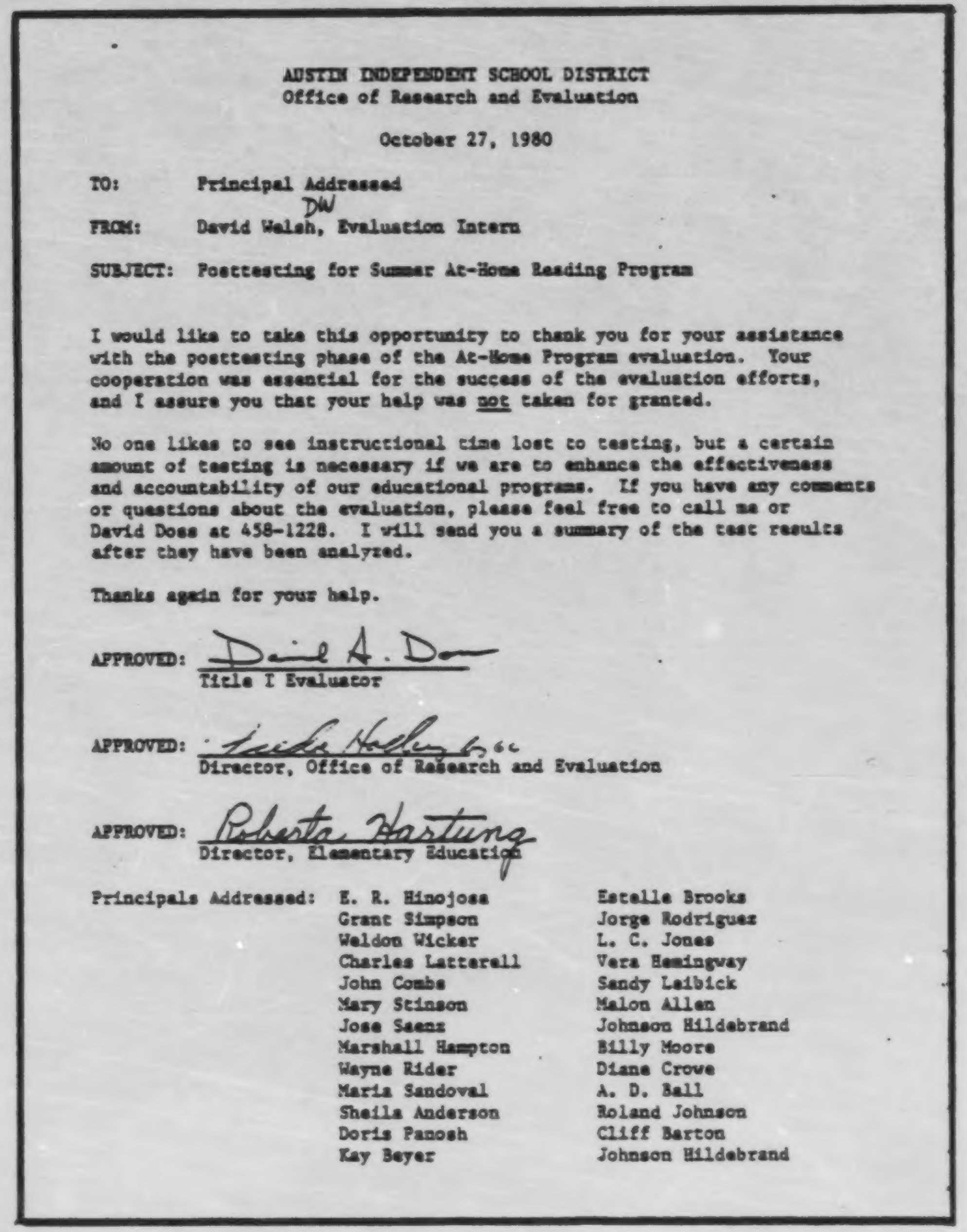
Approved: David A. Doss
Title I Evaluator

Approved: Freda Holley
Director of Office of Research and Evaluation

Approved: Roberta Hartung
Director of Elementary Education

DW:lfs

Attachment E-2
(Page 4 of 4)



AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

October 27, 1980

TO: Principal Addressed

FROM: David Walsh, Evaluation Intern DW

SUBJECT: Posttesting for Summer At-Home Reading Program

I would like to take this opportunity to thank you for your assistance with the posttesting phase of the At-Home Program evaluation. Your cooperation was essential for the success of the evaluation efforts, and I assure you that your help was not taken for granted.

No one likes to see instructional time lost to testing, but a certain amount of testing is necessary if we are to enhance the effectiveness and accountability of our educational programs. If you have any comments or questions about the evaluation, please feel free to call me or David Doss at 458-1228. I will send you a summary of the test results after they have been analyzed.

Thanks again for your help.

APPROVED: David A. Do
Title I Evaluator

APPROVED: Holley by ec
Director, Office of Research and Evaluation

APPROVED: Roberta Hartung
Director, Elementary Education

Principals Addressed:

E. R. Hinojosa
Grant Simpson
Weldon Wicker
Charles Latterell
John Combs
Mary Stinson
Jose Saenz
Marshall Hampton
Wayne Rider
Maria Sandoval
Sheila Anderson
Doris Panosh
Kay Beyer

Estelle Brooks
Jorge Rodriguez
L. C. Jones
Vera Hemingway
Sandy Leibick
Malon Allen
Johnson Hildebrand
Billy Moore
Diane Crowe
A. D. Ball
Roland Johnson
Cliff Barton
Johnson Hildebrand

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

DIRECTIONS FOR ADMINISTERING THE ITBS
LEVELS 7 AND 8 (VOCABULARY, WORD ANALYSIS, and READING TESTS)

Today we are going to take part of the Iowa Tests of Basic Skills. It is important that you do your best on these tests. Otherwise, they will not really show how well you can read. We will use these scores to help make Austin's schools better.

It will take about an hour to finish these tests. We will take a short break when we are half through. Before we begin, I'd like to give you some hints for test-taking.

- The first and most important rule of test-taking is to listen carefully to all the directions and follow them exactly.
- I cannot answer questions about test exercises. But if you have any questions about the directions, raise your hand and wait for me to call on you.
- It is important for you to be quiet while we read the directions and when we are taking the tests. If you finish working early, you can check back over your answers just on the part we are taking. BUT PLEASE BE QUIET. If you are noisy, you might disturb classmates who are still working.
- On each of the test exercises, you are to mark the answer you think is best. You are not expected to know all of the answers, so don't guess about which answer is correct unless you know that one or two of the choices just aren't right.

Does anyone have any questions?

(Pause for questions)

I am going to pass out the test booklets now. Leave your booklet on your desk until I tell you what to do next.

(Pass out booklets)

These booklets will be scored by a computer. Because a computer will score them, you must be very careful in the way you treat your booklets and in the way you mark your answers. If you are not careful, the computer might not give you the correct score on your test. Some of the things you need to remember are:

- Don't fold your booklet. Leave it flat on your desk.
- Don't mark on your booklet except to mark your answers.
- Use a number 2 pencil to mark your answers.
- When you fill in the ovals to mark your answers, be sure that you make a heavy, dark mark that fills the oval, but doesn't go outside it. Don't waste time making very neat marks, just make very black marks.
- Mark only one answer for each question. If you change your mind about an answer, erase your first mark as completely as you can.

Are there any questions?

(Pause for questions)

(Now read directions for Test V: Vocabulary, in your ITBS Teacher's Guide.

For Level 7, the directions begin on p. 12.
For Level 8, the directions begin on p. 28.

Continue through Test WA:Word Analysis.)

(After the students have completed Test WA, they may close their booklets and take a 5-minute break. After the break, students should return to the same seats and open their booklets. When everyone is ready, read the following)

Now we will take the last part of the test. Remember not to fold your test booklets. You should only mark one answer for each question. If you want to change an answer, erase it as completely as you can.

Are there any questions?

(Pause for questions)

(Now read the directions for Test R1:Pictures in your ITBS Teacher's Guide. Continue through Test R3: Stories).

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

TESTER CHECKLIST FOR ITBS LEVELS 7,8

Students in grades 2 and 3 should be given Levels 7 and 8, respectively. The tests to be administered on each level are Vocabulary, Word Analysis, and Reading.

BEFORE TESTING

____ 1. READ THROUGH THIS CHECKLIST: This information provides an overview of what must be done.

____ 2. READ THE TEST DIRECTIONS: Reading the test directions allows you to become familiar with this particular test and helps you discover questions concerning the test procedure before the actual testing session. You will need to read the accompanying "Directions for Administering the ITBS" as well as certain portions of the ITBS Teacher's Guide.

Thus, if you will be administering Level 7, carefully read pages 12-15 of the Teacher's Guide. If you will be administering Level 8, read pages 28-31. Note that you will be using the Basic Battery booklets, which means that you will be referring to the page numbers preceded by a square in the Teacher's Guide.

____ 3. DETERMINE WHEN AND WHERE TESTS ARE TO BE ADMINISTERED: According to the manual, the administration of the tests should require approximately 83 minutes.

10 minutes for preliminary activities
14 minutes for the Vocabulary Test
20 minutes for the Word Analysis Test
a 5-minute break
34 minutes for the Reading Test

Note that the tests are untimed, and these figures are only approximate. The time and place of the testing is up to the discretion of the teacher and the principal.

____ 4. COMPLETE THE IDENTIFYING INFORMATION ON THE TEST BOOKLETS: Using the list of students to be tested, fill in each student's name, school, grade level, and identification number on the cover of the test booklet.

____ 5. CHECK YOUR MATERIALS: Make sure you have the following supplies:

an adequate number of test booklets
enough number 2 pencils
a copy of the ITBS Teacher's Guide for Levels 7 and 8
a copy of the "Directions for Administering the ITBS"
a list of students to be tested
a sign for your door reading "TESTING, DO NOT DISTURB"

____ 6. ARRANGE FOR THE STUDENTS TO BE IN THE APPROPRIATE PLACE AT THE RIGHT TIME.

THE DAY OF TESTING

____ 7. ARRIVE EARLY: Make sure you have enough desks and that they are as far apart as possible. Hang the "DO NOT DISTURB" sign on the door.

____ 8. DISTRIBUTE BOOKLETS AND PENCILS: After the students have arrived, make sure each one is given the booklet with his/her name on it.

____ 9. ADMINISTRATION: Administer the tests following the "Directions for Administering the ITBS". Keep the following points in mind:

- Be present in the room during all testing.
- You may repeat test directions of students do not understand what they are supposed to do, and if it is permitted on that test.
- DO NOT rephrase a test question or explain what a word in a test question means. Read items to students only where the test directions allow.
- Remember that Level 7 and Level 8 tests are untimed. Allow sufficient time for all but the slowest students to finish each exercise or test.
- Whenever possible, move quietly around the room to observe whether students are following directions correctly. Make sure students are marking their answers properly in the test booklet.
- On those tests where students work on their own:
  - tell students to quietly check back over their work on that test if they finish early.
  - remind students to go back and complete exercises that they left unanswered on that test.
- DO NOT let students flip ahead in the test booklet.

AFTER TESTING

____ 10. Make sure you collect all the testing materials. Double-check to make sure each test booklet has the student's name, school, grade level, and identification number.

____ 11. MAKE-UP TESTING: Arrangements should be made so that students absent on the day of testing can be tested. Make-up testing should be done in an area which is free from distractions. Someone must be present to read directions and monitor the student(s).

Attachment E-3
(Page 5 of 5)

____ 12. **RETURN OF COMPLETED MATERIALS:** All testing materials must be returned to ORE by October 17. Materials should be returned via school mail to:

David Welsh
Office of Research & Evaluation
Administration Building, Box 79

Do not retain test materials to complete make-up testing after October 17. Do whatever make-up testing you can, but have all materials returned to ORE by October 17.

Attachment E-4
(Page 1 of 4)

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

DIRECTIONS FOR ADMINISTERING THE ITBS
LEVELS 9, 10, 11 (Reading and Vocabulary Tests)

Today we are going to take part of the Iowa Tests of Basic Skills. It is very important that you do your best on these tests. Otherwise, they will not really show how well you can read. We will use these scores to help make Austin's schools better.

It will take about an hour and a half to finish these tests. Before we begin, I'd like to remind you about some hints for test-taking:

- The first and most important rule of test-taking is to listen carefully to all the directions and follow them exactly.
- I cannot answer questions about specific test exercises. But if you have questions about the directions, raise your hand and wait for me to call on you.
- It is important for you to be quiet while we read the directions and when we are taking the test. If you finish early, check your answers on that part of the test only or erase any extra marks you might have made on your test booklet or answer sheet. BUT DO BE QUIET. If you are noisy you might disturb classmates who are still working on the test.
- You will be told when to begin and when to stop. You will not be told how much time is left, so it is a good idea to do the exercises which are easy for you first and then try the more difficult exercises. Remember you are not expected to know all the answers. If you don't know the answer to an exercise, do not guess unless you know that one or two of the choices are wrong.

Does anyone have any questions?

(pause for questions)

I will now pass out the test booklets and answer sheets. Place your closed test booklet on your desk and wait until I give further directions.

(pass out test booklets and answer sheets)

First let's look at your answer sheet. It will be scored by a computer. Any tears, holes, folds, bent edges, or extra marks may cause the computer to score your answer sheet incorrectly. You must be very, very careful with your answer sheet.

Remember that all your answers to the test exercises are to be marked on your answer sheet with a number 2 pencil. DON'T MARK IN YOUR TEST BOOKLET. When you mark your answers, remember that you must:

- MAKE A HEAVY MARK. The mark should fill the oval, but it should not go outside. Do not waste time making very neat marks. It is more important to make very black marks. Be sure to use a number 2 pencil.
- KEEP YOUR PLACE ON THE ANSWER SHEET. Make certain each time that your mark is placed in the row numbered the same as the exercise.

- **MARK ONLY ONE MARK IN A ROW.** If you change your mind about an answer, erase your first mark as completely as you can.

Does anyone have any questions about how to mark the answer sheet?

(pause for questions)

Your answer sheet already has your name on the front of it. Now turn your answer sheet over to the side that does not have your name printed on it and find the space for your name. Write your last name first, then your first name. Do not write your name anywhere else on the answer sheet.

When you have written your name turn your answer sheet back to the side with your name already printed on it.

(After the students have done this, begin reading the blue type in the ITBS Teacher's Guide, page 14, column 3, paragraph 6.

Continue up to Test L: Language Skills. Administer only the Vocabulary and Reading Comprehension Tests.)

(Students may take a five-minute break between the Vocabulary and Reading Comprehension Tests)

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

TESTER CHECKLIST FOR ITBS LEVELS 9-12

Students in grades 4, 5, and 6 will be given Levels 9, 10, 11, or 12. Check the student list to determine which ITBS levels will be given to which students. Note that Levels 9-12 can be administered together. The Reading and Vocabulary tests will be administered.

BEFORE TESTING

____ 1. READ THROUGH THIS CHECKLIST: This information provides an overview of what must be done.

____ 2. READ THE TEST DIRECTIONS: Reading the test directions allows you to become familiar with this particular test and helps you discover questions concerning the test procedure before the actual testing session. You will need to read the accompanying "Directions for Administering the ITBS" as well as certain portions of the ITBS Teacher's Guide (pages 14-16).

____ 3. DETERMINE WHEN AND WHERE TESTS ARE TO BE ADMINISTERED: According to the manual, the administration of the tests should require approximately 77 minutes.

15 minutes for preliminary activities
15 minutes for the Vocabulary Test
a 5-minute break
42 minutes for the Reading Test

The time and place of the testing is up to the discretion of the teacher and the principal.

____ 4. CHECK YOUR MATERIALS: Make sure you have the following supplies:

an adequate number of test booklets
enough number 2 pencils
a copy of the ITBS Teacher's Guide for Levels 9-14
a copy of the "Directions for Administering the ITBS"
a list of students to be tested
a sign for your door reading "TESTING, DO NOT DISTURB"
a stop watch or watch with a second hand

____ 5. ARRANGE FOR THE STUDENTS TO BE IN THE APPROPRIATE PLACE AT THE RIGHT TIME.

THE DAY OF TESTING

____ 6. ARRIVE EARLY: Make sure you have enough desks and that they are as far apart as possible. Hang the "DO NOT DISTURB" sign on the door.

____ 7. DISTRIBUTE BOOKLETS, PENCILS, AND ANSWER SHEETS: After the students have arrived, make sure each one is given the answer sheet with his/her name on it.

____ 8. ADMINISTRATION: Administer the tests following the "Directions for Administering the ITBS". Keep the following points in mind:

- Be present in the room during all testing.
- You may repeat test directions if students do not understand what they are supposed to do, and if it is permitted on that test.
- DO NOT rephrase a test question or explain what a word in a test question means. Read items to students only where the test directions allow.
- Remember that Levels 9-12 tests must be carefully timed. Do not allow students to begin early, or to work past the stopping time.
- Whenever possible, move quietly around the room to observe whether students are following directions correctly. Make sure students are marking their answers properly on their answer sheets.
- On those tests where students work on their own:
  - tell students to quietly check back over their work on that test if they finish early.
  - remind students to go back and complete exercizes that they left unanswered on that test.
- DO NOT let students flip ahead in the test booklet.
- DO NOT USE paper clips or rubber bands on the answer sheets!

AFTER TESTING

____ 9. Make sure you collect all the testing materials. Double-check to make sure each test booklet has the student's name, school, grade level, and identification number.

____ 10. MAKE-UP TESTING: Arrangements should be made so that students absent on the day of testing can be tested. Make-up testing should be done in an area which is free from distractions. Someone must be present to read directions and monitor the student(s).

____ 11. RETURN OF COMPLETED MATERIALS: All testing materials must be returned to ORE by October 17. Materials should be returned via school mail to:

David Welsh
Office of Research and Evaluation
Administration Building, Box 79

Do not retain test materials to complete make-up testing after October 17. Do whatever make-up testing you can, but have all materials returned to ORE by October 17.

Comparison of Pre- and Posttest Word Analysis Scores By Grade for At-Home Participants and Controls.

Trial	Description
1	Posttest
2	Pretest

```
*** OUTPUT FROM PROGRAM ANOVAR ***

GRADE 3 -- AT HOME PROGRAM 12/80 -- WORD ANALYSIS G.E.

PARAMETERS
COL  1- 5 =      1
COL  6-10 =      1
COL 11-15 =      2
COL 16-20 =      0
COL 21-25 =      0

DATA FORMAT = (DUMMY)

GROUP 1    42 SUBJECTS.  10 WEEK PARTICIPANTS
TOTAL              0.7469      83.

 TRIALS            1.3630       1.        4.993      0.0292

 ERROR (T)         0.2730      41.

T MEAN               1          2
                   1.9643     1.7095

PARAMETERS
COL  1- 5 =      1
COL  6-10 =      1
COL 11-15 =      2
COL 16-20 =      0
COL 21-25 =      0

DATA FORMAT = (DUMMY)

GROUP 1    42 SUBJECTS.  CONTROL
ANALYSIS FOR VARIABLE  1

SOURCE      MEAN SQUARE      D.F.     F-RATIO        P

TOTAL              0.5018      83.

 TRIALS            0.0268       1.        0.123      0.7277

 ERROR (T)         0.2180      41.

T MEAN               1          2
                   1.8214     1.7857
```

```
          *** OUTPUT FROM PRCGRAM ANCVAR ***

GRADE 7 -- AT HCME PROGRAM 12/80 -- WORD ANALYSIS G.E.

PARAMETERS
COL  1- 5 =       1
COL  6-10 =       1
COL 11-15 =       2
COL 16-20 =       0
COL 21-25 =       0

DATA FORMAT = (DUMMY)

GROUP 1    21 SUBJECTS.  10 WEEK PARTICIPANTS
ANALYSIS FOR VARIABLE  1

SOURCE      MEAN SQUARE      D.F.      F-RATIC        P

TOTAL             0.5045      41.

 TRIALS           0.0343       1.        0.147     0.7066

 ERRCR (T)        0.2333      20.


T MEAN              1           2
                  1.7571      1.7000

PARAMETERS
CCL  1- 5 =       1
COL  6-10 =       1
COL 11-15 =       2
CCL 16-20 =       0
COL 21-25 =       0

DATA FORMAT = (DUMMY)

GROUP 1    21 SUBJECTS.  CCNTRCL
ANALYSIS FOR VARIABLE  1

SOURCE      MEAN SQUARE      D.F.      F-RATIC        P

TOTAL             0.4766      41.

 TRIALS           0.3086       1.        1.013     0.3276

 ERRCR (T)        0.3046      20.


T MEAN              1           2
                  2.0238      1.8524
```

Comparison of Pre- and Posttest Vocabulary Scores By Grade for At-Home Participants and Controls.

Trial	Description
1	Posttest
2	Pretest

```
*** OUTPUT FROM PRCGRAM ANCVAR ***

GRADE 6 -- AT HOME PROGRAM 12/80 -- VOCABULARY G.E.

PARAMETERS
COL  1- 5 =        1
COL  6-10 =        1
COL 11-15 =        2
COL 16-20 =        0
COL 21-25 =        0

DATA FORMAT = (DUMMY)

GROUP 1    41 SUBJECTS.  10 WEEK PARTICIPANTS
ANALYSIS FOR VARIABLE  1

SOURCE       MEAN SQUARE      D.F.      F-RATIC        P

TOTAL             0.3815       81.

 TRIALS           1.9980        1.      21.358      0.0001

 ERRCR (T)        0.0935       40.


T MEAN              1            2
                 1.9878       1.6756
PARAMETERS
COL  1- 5 =        1
COL  6-10 =        1
COL 11-15 =        2
COL 16-20 =        0
COL 21-25 =        0

DATA FORMAT = (DUMMY)

GROUP 1    41 SUBJECTS.  CONTRCL
ANALYSIS FOR VARIABLE  1

SOURCE       MEAN SQUARE      D.F.      F-RATIC        P

TOTAL             0.4805       81.

 TRIALS           1.7561        1.      13.244      0.0011

 ERRCR (T)        0.1326       40.


T MEAN              1            2
                 1.8927       1.6000
```

```
     *** CUTPUT FRCM PRCGRAM ANCVAR ***

GRADE 3 -- AT HOME PROGRAM 12/80 -- VCCABULARY G.E.

PARAMETERS
COL   1- 5 =      1
COL   6-10 =      1
COL  11-15 =      2
COL  16-20 =      0
COL  21-25 =      0

DATA FCRMAT = (DUMMY)

GROUP 1     21 SUBJECTS.  10 hEEK PARTICIPANTS
ANALYSIS FCR VARIABLE  1

SOURCE      MEAN SQUARE      D.F.      F-RATIC         P

TCTAL            0.7671       41.

 TRIALS          0.6688        1.        2.016      0.1682

 ERRCR (T)       0.3318       20.

T MEAN             1           2
                 1.7476      1.4952
PARAMETERS
COL   1- 5 =      1
COL   6-10 =      1
COL  11-15 =      2
COL  16-20 =      0
COL  21-25 =      0

DATA FORMAT = (DUMMY)

GROUP 1     21 SUBJECTS.  CONTRCL
ANALYSIS FOR VARIABLE  1

SOURCE      MEAN SQUARE      D.F.      F-RATIC         P

TOTAL            0.7739       41.

 TRIALS          1.8438        1.       13.477      0.0018

 ERRCR (T)       0.1368       20.

T MEAN             1           2
                 1.9952      1.5762
```

```
*** OUTPUT FROM PROGRAM ANOVAR ***

GRADE 5 -- AT HOME PROGRAM 12/80 -- READING VOCABULARY G.E.

PARAMETERS
COL  1- 5 =      1
COL  6-10 =      1
COL 11-15 =      2
COL 16-20 =      0
COL 21-25 =      0

DATA FORMAT = (DUMMY)

GROUP 1    14 SUBJECTS.  10 WEEK PARTICIPANTS
ANALYSIS FOR VARIABLE  1

SOURCE      MEAN SQUARE      D.F.      F-RATIO          P

TOTAL            0.7804      27.

 TRIALS          0.1289       1.         0.573     0.4685

 ERROR (T)       0.2251      13.

T MEAN                1        2
                 2.7143   2.5786
PARAMETERS
COL  1- 5 =      1
COL  6-10 =      1
COL 11-15 =      2
COL 16-20 =      0
COL 21-25 =      0

DATA FORMAT = (DUMMY)

GROUP 1    14 SUBJECTS.  10 WEEK CONTROLS
ANALYSIS FOR VARIABLE  1

SOURCE      MEAN SQUARE      D.F.      F-RATIO          P

TOTAL            0.7435      27.

 TRIALS          1.9557       1.        16.463     0.0016

 ERROR (T)       0.1188      13.

T MEAN                1        2
                 3.0786   2.5500
```

```
*** OUTPUT FROM PROGRAM ANOVAR ***

GRADE 45 -- AT HOME PROGRAM 12/80 -- READING VOCABULARY G.E.

PARAMETERS
COL  1- 5 =      1
COL  6-10 =      1
COL 11-15 =      2
COL 16-20 =      0
COL 21-25 =      0

DATA FORMAT = (DUMMY)

GROUP 1    17 SUBJECTS.  10 WEEK PARTICIPANTS
ANALYSIS FOR VARIABLE  1

SOURCE       MEAN SQUARE       D.F.      F-RATIO          P

TOTAL             3.4606        33.

 TRIALS           0.0003         1.        0.002      0.9678

 ERROR (T)        0.1872        16.


T MEAN              1            2
                 3.6353       3.6412
PARAMETERS
COL  1- 5 =      1
COL  6-10 =      1
COL 11-15 =      2
COL 16-20 =      0
COL 21-25 =      0

DATA FORMAT = (DUMMY)

GROUP 1    17 SUBJECTS.  10 WEEK CONTROLS
ANALYSIS FOR VARIABLE  1

SOURCE       MEAN SQUARE       D.F.      F-RATIO          P

TOTAL             2.5285        33.

 TRIALS           1.0588         1.        7.362      0.0147

 ERROR (T)        0.1438        16.


T MEAN              1            2
                 4.0529       3.7000
```

```
*** OUTPUT FROM PROGRAM ANOVAR ***

GRADE 5 — AT HOME PROGRAM 12/80 — READING VOCABULARY G.E.

PARAMETERS
COL  1- 5 =      1
COL  6-10 =      1
CCL 11-15 =      2
CCL 16-20 =      0
COL 21-25 =      0

DATA FORMAT = (DUMMY)

GROUP 1    21 SUBJECTS.  10 WEEK PARTICIPANTS
ANALYSIS FOR VARIABLE  1

SOURCE       MEAN SQUARE      D.F.     F-RATIO         P

TOTAL             0.9899      41.

 TRIALS           1.3393       1.       7.533     0.0120

 ERROR (T)        0.1778      20.


T MEAN               1         2
                  4.8333    4.4762
PARAMETERS
CCL  1- 5 =      1
COL  6-10 =      1
CCL 11-15 =      2
CCL 16-20 =      0
CCL 21-25 =      0

DATA FORMAT = (DUMMY)

GROUP 1    21 SUBJECTS.  10 WEEK CONTROLS
ANALYSIS FOR VARIABLE  1

SOURCE       MEAN SQUARE      D.F.     F-RATIO         P

TOTAL             1.1011      41.

 TRIALS           3.2593       1.      10.694     0.0040

 ERROR (T)        0.3048      20.


T MEAN               1         2
                  4.9905    4.4333
```

Comparison of Pre- and Posttest Reading Comprehension Scores By Grade for At-Home and Control Students.

Trial	Description
1	Posttest
2	Pretest

```
        *** OUTPUT FRCM PRCGRAM ANCVAR ***

GRADE [illegible] -- AT HOME PROGRAM 12/80 -- COMPREHENSICN G.E.

PARAMETERS
COL  1- 5 =      1
COL  6-10 =      1
COL 11-15 =      2
COL 16-20 =      0
COL 21-25 =      0

DATA FORMAT = (DUMMY)

GROUP 1    40 SUBJECTS.  10 WEEK PARTICIPANTS
ANALYSIS FOR VARIABLE  1

SOURCE       MEAN SQUARE       D.F.      F-RATIC         P

TOTAL             0.5162        79.

 TRIALS           3.6980         1.       24.150      0.0001

 ERRCR (T)        0.1531        39.

T MEAN              1            2
                 1.9500       1.5200
PARAMETERS
COL  1- 5 =      1
COL  6-1C =      1
COL 11-15 =      2
COL 16-20 =      0
COL 21-25 =      0

DATA FORMAT = (DUMMY)

GROUP 1    40 SUBJECTS.  CONTRCL
ANALYSIS FCR VARIABLE  1

SOURCE       MEAN SQUARE       D.F.      F-RATIC         P

TOTAL             0.4033        79.

 TRIALS           0.8611         1.        8.669      0.0056

 ERRCR (T)        0.0993        39.

T MEAN              1            2
                 1.8750       1.6675
```

```
               *** OUTPUT FRCM PRCGRAM ANCVAR ***

GRADE 2 -- AT HOME PROGRAM 12/80 -- COMPREHENSICN G.E.

PARAMETERS
CCL  1- 5 =       1
COL  6-10 =       1
COL 11-15 =       2
COL 16-20 =       0
COL 21-25 =       0

DATA FORMAT = (DUMMY)

GROUP 1     21 SUBJECTS.  10 WEEK PARTICIPANTS
ANALYSIS FOR VARIABLE  1

SOURCE      MEAN SQUARE      D.F.      F-RATIC         P

TOTAL            0.4845      41.

 TRIALS          0.5260       1.        5.510      0.0277

 ERRCR (T)       0.0955      20.

T MEAN               1          2
                 2.0000     1.7762

GRADE 2 -- AT HOME PROGRAM 12/80 -- CCMPREHENSICN G.E.

PARAMETERS
COL  1- 5 =       1
COL  6-1C =       1
COL 11-15 =       2
COL 16-20 =       0
COL 21-25 =       0

DATA FORMAT = (DUMMY)

GROUP 1     21 SUBJECTS.  CONTRCL
ANALYSIS FOR VARIABLE  1

SOURCE      MEAN SQUARE      D.F.      F-RATIC         P

TOTAL            0.4266      41.

 TRIALS          0.4002       1.        3.146      0.0881

 ERRCR (T)       0.1272      20.

T MEAN               1          2
                 1.9286     1.7333
```

```
     *** OUTPUT FROM PROGRAM ANOVAR ***

GRADE 3 -- AT HOME PROGRAM 12/80 -- READING COMPREHENSION G.E.

PARAMETERS
COL  1- 5 =     1
COL  6-10 =     1
CCL 11-15 =     2
COL 16-20 =     0
COL 21-25 =     0

DATA FORMAT = (DUMMY)

GROUP 1     14 SUBJECTS.   10 WEEK PARTICIPANTS
ANALYSIS FOR VARIABLE  1

SOURCE       MEAN SQUARE       D.F.      F-RATIO          P

TCTAL               0.6186       27.

 TRIALS             0.0432        1.        0.283      0.6087

 ERROR (T)          0.1524       13.

T MEAN                1           2
                    2.7286      2.8071
PARAMETERS
COL  1- 5 =     1
CCL  6-10 =     1
COL 11-15 =     2
COL 16-20 =     0
COL 21-25 =     0

DATA FORMAT = (DUMMY)

GROUP 1     14 SUBJECTS.   10 WEEK CONTROLS
ANALYSIS FOR VARIABLE  1

SOURCE       MEAN SQUARE       D.F.      F-RATIO          P

TOTAL               0.6064       27.

 TRIALS             1.0032        1.        7.755      0.0149

 ERRCR (T)          0.1294       13.

T MEAN                1           2
                    3.1643      2.7857
     *** OUTPUT FROM PROGRAM ANOVAR ***

GRADE 5 -- AT HOME PROGRAM 12/80 -- READING COMPREHENSION G.E.

PARAMETERS
COL  1- 5 =        1
CCL  6-10 =        1
CCL 11-15 =        2
CCL 16-20 =        C
COL 21-25 =        0

DATA FORMAT = (DUMMY)

GROUP 1     17 SUBJECTS.  10 WEEK PARTICIPANTS
ANALYSIS FOR VARIABLE  1

SOURCE      MEAN SQUARE      D.F.     F-RATIO        P

TOTAL            2.4826       33.

 TRIALS          1.1674        1.       3.343     0.0832

 ERROR (T)       0.3492       16.

T MEAN             1           2
                 3.8588      3.4882
PARAMETERS
CCL  1- 5 =        1
COL  6-10 =        1
CCL 11-15 =        2
COL 16-20 =        0
CCL 21-25 =        0

DATA FORMAT = (DUMMY)

GROUP 1     17 SUBJECTS.  10 WEEK CONTROLS
ANALYSIS FOR VARIABLE  1

SOURCE      MEAN SQUARE      D.F.     F-RATIO        P

TCTAL            2.4780       33.

 TRIALS          0.9556        1.       8.007     0.0117

 ERROR (T)       0.1193       16.

T MEAN             1           2
                 3.8471      3.5118
```

```
      *** OUTPUT FROM PROGRAM ANOVAR ***

GRADE 5 -- AT HOME PROGRAM 12/80 -- READING COMPREHENSION G.E.

PARAMETERS
COL  1- 5 =      1
COL  6-10 =      1
COL 11-15 =      2
COL 16-20 =      0
COL 21-25 =      0

DATA FORMAT = (DUMMY)

GROUP 1    21 SUBJECTS.  10 WEEK PARTICIPANTS
ANALYSIS FOR VARIABLE  1

SOURCE      MEAN SQUARE      D.F.      F-RATIO        P

TOTAL            1.6460       41.

 TRIALS          0.2288        1.       0.482       0.5020

 ERROR (T)       0.4748       20.

T MEAN             1           2
                 4.4619     4.3143
PARAMETERS
COL  1- 5 =      1
CCL  6-10 =      1
COL 11-15 =      2
COL 16-20 =      0
COL 21-25 =      0

DATA FORMAT = (DUMMY)

GROUP 1    21 SUBJECTS.  10 WEEK CONTROLS
ANALYSIS FOR VARIABLE  1

SOURCE      MEAN SQUARE      D.F.      F-RATIO        P

TOTAL            1.2811       41.

 TRIALS          0.0467        1.       0.117       0.7347

 ERROR (T)       0.3977       20.

T MEAN             1           2
                 4.5857     4.5190
```

Comparisons of At-Home Participants and Controls on ITBS Word Analysis Gains.

Grades 1 and 2

Variable	Description
1	Fall, 1980, Word Analysis grade equivalent score.
2	Spring, 1980, Word Analysis grade equivalent score.
3	Spring, 1980, Word Analysis grade equivalent score if At-Home participant; 0, otherwise.
4	Spring, 1980, Word Analysis grade equivalent score if control; 0, otherwise.
5	1 if At-Home participant; 0, otherwise.

```
     *** OUTPUT FRCM PRCGRAM REGRAN ***

GRADE 1 -- AT HOME PRCGRAM 12/80 -- 10 WEEK VS CONTRCL -- WCRD ANALYSIS G.E.

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     84
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.


MEANS                1          2          3          4          5
                1.8929     1.7476     0.8548     0.8929     0.5000


SIGMAS               1          2          3          4          5
                0.8018     0.7623     1.0302     1.0228     0.5000


R MATRIX             1          2          3          4          5

       1        1.0000     0.5993     0.3496     0.0946     0.0891

       2        0.5993     1.0000     0.3796     0.3629    -0.0500

       3        0.3496     0.3796     1.0000    -0.7243     0.8297

       4        0.0946     0.3629    -0.7243     1.0000    -0.8729

       5        0.0891    -0.0500     0.8297    -0.8729     1.0000


MODEL   1 M1  CRITERION =  1

PREDICTCRS =  3- 5
P =  3   RSQ = 0.1222
P =  4   RSQ = 0.3766

R = 0.6137      RSQ = 0.3766          2 ITERATICNS.

  V       BETA          B
  3     0.8794     0.6844
  4     0.7316     0.5734
  5     0.0        0.0
REG. CCNST. =     0.7958
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.3592
P =  5   RSQ = 0.3734

R = 0.6111      RSQ = 0.3734           2 ITERATIONS.

  V      BETA        B
  2     0.6053     0.6367
  5     0.1193     0.1914
REG. CONST. =      0.6845


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.3592

R = 0.5993      RSQ = 0.3592           1 ITERATIONS.

  V      BETA        B
  2     0.5993     0.6304
REG. CONST. =      0.7912

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.3766      MODEL  1
RSQ REDUCED = 0.3734      MODEL  2
DIFFERENCE =  0.0032
DFN =  1.      DFD =    80.     F-RATIO =    0.410    P = 0.5308

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.3734      MODEL  2
RSQ REDUCED = 0.3592      MODEL  3
DIFFERENCE =  0.0142
DFN =  1.      DFD =    81.     F-RATIO =    1.837    P = 0.1758
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

GRADE 2;-- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- WORD ANALYSIS G.E.

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     42
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1

INTERCORRELATION ANALYSIS.


MEANS                1           2           3           4           5
                1.8905      1.7762      0.8500      0.9262      0.5000


SIGMAS               1           2           3           4           5
                0.6914      0.7037      1.0024      1.0319      0.5000


R MATRIX             1           2           3           4           5

        1       1.0000      0.4703      0.0309      0.2907     -0.1929

        2       0.4703      1.0000      0.3085      0.3822     -0.1083

        3       0.0309      0.3085      1.0000     -0.7611      0.8479

        4       0.2907      0.3822     -0.7611      1.0000     -0.8976

        5      -0.1929     -0.1083      0.8479     -0.8976      1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.4928      RSQ = 0.2428           28 ITERATIONS.

  V      BETA       B
  3    0.6869    0.4738
  4    0.6174    0.4137
  5   -0.2185   -0.3021
REG. CONST. =    1.2557
```

```
MODEL  2 M2  CRITERION =  1
------------------------------------------------------------------------
PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.2212
P =  5   RSC = 0.2416

R = 0.4915     RSQ = 0.2416          2 ITERATICNS.

  V       BETA        B
  2     0.4548     0.4468
  5    -0.1436    -0.1986
------------------------------------------------------------------------
REG. CCNST. =     1.1961


------------------------------------------------------------------------

MODEL  3 M3  CRITERION =  1
------------------------------------------------------------------------
PREDICTCRS =  2- 2
P =  2   RSC = 0.2212
------------------------------------------------------------------------
R = 0.4703     RSC = 0.2212          1 ITERATICNS.

  V       BETA        B
------------------------------------------------------------------------
  2     0.4703     0.4621
REG. CCNST. =     1.0697
------------------------------------------------------------------------

F-TEST  1   MODEL 1 VS MCDEL 2
RSQ FULL =      0.2428      MODEL  1
------------------------------------------------------------------------
RSQ REDUCED = 0.2416      MODEL  2
DIFFERENCE =  0.0012
DFN =  1.      DFD =   38.     F-RATIC =   0.063   P = 0.7993
------------------------------------------------------------------------

F-TEST  2   MODEL 2 VS MCDEL 3
------------------------------------------------------------------------
RSQ FULL =      0.2416      MODEL  2
RSQ RECUCED = 0.2212      MODEL  3
DIFFERENCE =  0.0204
------------------------------------------------------------------------
DFN =  1.      DFD =   39.     F-RATIC =   1.048   P = 0.3132
```

Comparisons of At-Home Participants and Controls on ITBS Vocabulary Gains.

Grades 1-5

Variable	Description
1	Fall, 1980, Vocabulary grade equivalent score.
2	Spring, 1980, Vocabulary grade equivalent score.
3	Spring, 1980, Vocabulary grade equivalent score if At-Home participant; 0, otherwise.
4	Spring, 1980, Vocabulary grade equivalent score if control; 0, otherwise.
5	1 if At-Home participant; 0, otherwise.

```
*** OUTPUT FROM PRCGRAM REGRAN ***

GRADE E -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTRCL -- VCCABULARY G.E.

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     82
CCL 11-15 =      3
COL 16-20 =      2
CCL 21-25 =      1

INTERCORRELATION ANALYSIS.

MEANS             1          2          3          4          5
             1.9402     1.6378     0.8378     0.8000     0.5000


SIGMAS            1          2          3          4          5
             0.6382     0.6341     0.9339     0.9330     0.5000


R MATRIX          1          2          3          4          5

      1      1.0000     0.7273     0.2860     0.2081     0.0745

      2      0.7273     1.0000     0.3409     0.3385     0.0596

      3      0.2860     0.3409     1.0000    -0.7692     0.8971

      4      0.2081     0.3385    -0.7692     1.0000    -0.8574

      5      0.0745     0.0596     0.8971    -0.8574     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTCRS =  3- 5
R = 0.7286      RSQ = 0.5309        13 ITERATICNS.

  V      BETA        B
  3    1.1084    0.7575
  4    1.0385    0.7104
  5   -0.0294   -0.0376
REG. CCNST. =    0.7561
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.5290
P =  5   RSQ = 0.5300

R = 0.7280      RSQ = 0.5300          2 ITERATIONS.

  V       BETA        B
  2     0.7254     0.7301
  5     0.0313     0.0399
REG. CONST. =      0.7245


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.5290

R = 0.7273      RSQ = 0.5290          1 ITERATIONS.

  V       BETA        B
  2     0.7273     0.7320
REG. CONST. =      0.7414

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =       0.5309      MODEL  1
RSQ REDUCED =  0.5300      MODEL  2
DIFFERENCE =   0.0009
DFN =  1.      DFD =    78.     F-RATIO =    0.155     P = 0.6974

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =       0.5300      MODEL  2
RSQ REDUCED =  0.5290      MODEL  3
DIFFERENCE =   0.0010
DFN =  1.      DFD =    79.     F-RATIO =    0.164     P = 0.6895
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

GRADE 2 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- VOCABULARY G.E.

PARAMETERS
COL   1- 5 =      5
COL   6-10 =     42
COL  11-15 =      3
COL  16-20 =      2
COL  21-25 =      1

INTERCORRELATION ANALYSIS.


MEANS                1          2          3          4          5
                1.8714     1.5357     0.7476     0.7881     0.5000


SIGMAS               1          2          3          4          5
                0.9681     0.7240     0.9103     0.9348     0.5000


R MATRIX             1          2          3          4          5

        1       1.0000     0.7192     0.1315     0.4290    -0.1279

        2       0.7192     1.0000     0.3634     0.4207    -0.0559

        3       0.1315     0.3634     1.0000    -0.6924     0.8213

        4       0.4290     0.4207    -0.6924     1.0000    -0.8430

        5      -0.1279    -0.0559     0.8213    -0.8430     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.7380     RSQ = 0.5447          24 ITERATIONS.

  V      BETA        B
  3    0.7342    0.7808
  4    1.1033    1.1426
  5    0.1963    0.3800
REG. CONST. =    0.1972
```

```
MODEL   2 M2   CRITERICN =  1

PREDICTORS =   2- 2   5- 5
P =  2    RSQ = 0.5172
P =  5    RSQ = 0.5250

R = 0.7245      RSQ = 0.5250           2 ITERATICNS.

  V       BETA        B
  2     0.7143      0.9551
  5    -0.0880     -0.1703
REG. CCNST. =       0.4898


MODEL   3 M3   CRITERION =  1

PREDICTORS =   2- 2
P =  2    RSC = 0.5172

R = 0.7192      RSQ = 0.5172           1 ITERATICNS.

  V       BETA        B
  2     C.7192      0.9617
REG. CONST. =       0.3946

F-TEST  1    MODEL 1 VS MODEL 2
RSQ FULL =      0.5447      MODEL  1
RSQ REDUCED = 0.5250        MODEL  2
DIFFERENCE =  0.0197
DFN =  1.       DFD =    38.      F-RATIO =    1.648    P = 0.2045

F-TEST  2    MODEL 2 VS MODEL 3
RSQ FULL =      0.5250      MODEL  2
RSQ REDUCED = 0.5172        MODEL  3
DIFFERENCE =  J.0077
DFN =  1.       DFD =    39.      F-RATIO =    0.633    P = 0.4367
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

GRADE 3 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- VOCABULARY G.E.

PARAMETERS
COL  1- 5 =     5
COL  6-10 =    28
COL 11-15 =     3
COL 16-20 =     2
COL 21-25 =     1

INTERCORRELATION ANALYSIS.

MEANS              1          2          3          4          5
              2.8964     2.5643     1.2893     1.2750     0.5000

SIGMAS             1          2          3          4          5
              0.9394     0.7388     1.3756     1.3933     0.5000

R MATRIX           1          2          3          4          5

      1       1.0000     0.7712     0.0268     0.3825    -0.1939

      2       0.7712     1.0000     0.2445     0.2888     0.0193

      3       0.0268     0.2445     1.0000    -0.8577     0.9372

      4       0.3825     0.2888    -0.8577     1.0000    -0.9151

      5      -0.1939     0.0193     0.9372    -0.9151     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.8085      RSQ = 0.6537        55 ITERATIONS.

  V      BETA        B
  3    1.6978    1.1594
  4    1.2781    0.8618
  5   -0.6155   -1.1564
REG. CONST. =    0.8810
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.5947
P =  5   RSQ = 0.6383

R = 0.7989       RSQ = 0.6383           2 ITERATIONS.

  V        BETA         B
  2     0.7752     0.9856
  5    -0.2089    -0.3924
REG. CONST. =      0.5652


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.5947

R = 0.7712       RSQ = 0.5947           1 ITERATIONS.

  V        BETA         B
  2     0.7712     0.9805
REG. CONST. =      0.3821


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.6537      MODEL  1
RSQ REDUCED = 0.6383      MODEL  2
DIFFERENCE =  0.0154
DFN =  1.      DFD =    24.     F-RATIO =    1.066    P = 0.3130

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.6383      MODEL  2
RSQ REDUCED = 0.5947      MODEL  3
DIFFERENCE =  0.0436
DFN =  1.      DFD =    25.     F-RATIO =    3.015    P = 0.0914
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

GRADE 4 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- VOCABULARY G.E.

PARAMETERS
CCL  1- 5 =     5
CCL  6-10 =    34
CCL 11-15 =     3
CCL 16-20 =     2
CCL 21-25 =     1

INTERCORRELATION ANALYSIS.

MEANS              1          2          3          4          5
              3.8441     3.6706     1.8206     1.8500     0.5000

SIGMAS             1          2          3          4          5
              1.7887     1.6207     2.1779     2.1493     0.5000

R MATRIX           1          2          3          4          5

      1       1.0000     0.9456     0.3109     0.3980    -0.1167

      2       0.9456     1.0000     0.3896     0.3593    -0.0181

      3       0.3109     0.3896     1.0000    -0.7195     0.8359

      4       0.3980     0.3593    -0.7195     1.0000    -0.8607

      5      -0.1167    -0.0181     0.8359    -0.8607     1.0000

MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.9535       RSQ = 0.9091          29 ITERATIONS.

   V       BETA          B
   3     1.3483     1.1073
   4     1.1587     0.9643
   5    -0.2465    -0.8819
REG. CONST. =       0.4852
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.8941
P =  5   RSQ = 0.9C41

R = 0.9508      RSQ = 0.9041            2 ITERATIONS.

  V       BETA        B
  2     0.9438     1.0416
  5    -0.0996    -0.3564
REG. CONST. =      0.1990


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = C.8941

R = 0.9456      RSQ = 0.8941            1 ITERATIONS.

  V       BETA        B
  2     0.9456     1.0436
REG. CONST. =     0.0135

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.9091      MODEL  1
RSQ REDUCED = 0.9C41      MODEL  2
DIFFERENCE =  0.C050
DFN =  1.      DFD =   30.     F-RATIO =    1.666    P = 0.2042

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.9C41      MODEL  2
RSQ REDUCED = 0.8941      MODEL  3
DIFFERENCE =  0.C099
DFN =  1.      DFD =   31.     F-RATIO =    3.205    P = 0.0797
```

```
*** OUTPUT FRCM PRCGRAM REGRAN ***

GRADE 5 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- VOCABULARY G.E.

PARAMETERS
CCL  1- 5 =      5
CGL  6-10 =     42
CCL 11-15 =      3
CCL 16-20 =      2
CCL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS               1           2           3           4           5
               4.9119      4.4548      2.2381      2.2167      0.5000

SIGMAS              1           2           3           4           5
               1.0646      0.8971      2.3232      2.3087      0.5000

R MATRIX            1           2           3           4           5

        1      1.0000      0.7689      0.0836      0.2147     -0.0738

        2      0.7689      1.0000      0.2092      0.1781      0.0239

        3      0.0836      0.2092      1.0000     -0.9250      0.9634

        4      0.2147      0.1781     -0.9250      1.0000     -0.9601

        5     -C.C738      0.0239      0.9634     -0.9601      1.0000

MCDEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.7764       RSQ = 0.6027          76 ITERATIONS.

  V      BETA          B
  3    2.1158     0.9696
  4    1.8793     0.8666
  5   -0.3046    -C.6486
REG. CONST. =     1.1452
```

```
MODEL  2 M2  CRITERION =  1 .

PREDICTORS =  2- 2  5- 5
P =  2    RSQ = 0.5911
P =  5    RSQ = 0.5996

R = 0.7744        RSQ = 0.5996            2 ITERATIONS.

  V        BETA        B
  2      0.7711      0.9150
  5     -0.0922     -0.1964
REG. CONST. =        0.9339


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2    RSQ = 0.5911

R = 0.7689        RSQ = 0.5911            1 ITERATIONS.

  V        BETA        B
  2      0.7689      0.9124
REG. CONST. =        0.8474

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =       0.6027       MODEL  1
RSQ REDUCED =  0.5996       MODEL  2
DIFFERENCE =   0.0031
DFN =  1.        DFD =    38.      F-RATIO =     0.297    P = 0.5956


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =       0.5996       MODEL  2
RSQ REDUCED =  0.5911       MODEL  3
DIFFERENCE =   0.0085
DFN =  1.        DFD =    39.      F-RATIO =     0.828    P = 0.3716
```

Comparisons of At-Home Participants and Controls on ITBS Reading Comprehension Gains.

Grades 1-5

Variable	Description
1	Fall, 1980, Comprehension grade equivalent score.
2.	Spring, 1980, Comprehension grade equivalent score.
3	Spring, 1980, Comprehension grade equivalent score if At-Home participant; 0, otherwise.
4	Spring, 1980, Comprehension grade equivalent score if control; 0, otherwise.
5	1 if At-Home participant; 0, otherwise.

```
*** OUTPUT FROM PROGRAM REGRAN ***

GRADE [illegible] -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- COMPREHENSION G.E.

PARAMETERS
COL  1- 5 =    5
COL  6-10 =   80
COL 11-15 =    3
COL 16-20 =    2
COL 21-25 =    1
INTERCORRELATION ANALYSIS.

MEANS            1          2          3          4          5
            1.9125     1.5937     0.7600     0.8337     0.5000

SIGMAS           1          2          3          4          5
            0.6028     0.7033     0.9362     0.9410     0.5000

R MATRIX         1          2          3          4          5

      1     1.0000     0.7070     0.3289     0.2011     0.0622

      2     0.7070     1.0000     0.3687     0.3805    -0.1049

      3     0.3289     0.3687     1.0000    -0.7193     0.8118

      4     0.2011     0.3805    -0.7193     1.0000    -0.8860

      5     0.0622    -0.1049     0.8118    -0.8860     1.0000

MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
```

```
R = 0.7326       RSQ = 0.5367          30 ITERATIONS.

  V       BETA          B
  3     0.8235       0.5303
  4     1.1852       0.7592
  5     0.4409       0.5315
REG. CONST. =        0.6108


MODEL   2 M2   CRITERION =  1

PREDICTORS =   2- 2   5- 5
P =   2    RSQ = 0.4998
P =   5    RSQ = 0.5186

R = 0.7202       RSQ = 0.5186           2 ITERATIONS.

  V       BETA          B
  2     0.7214       0.6184
  5     0.1379       0.1662
REG. CONST. =        0.8439


MODEL   3 M3   CRITERION =  1

PREDICTORS =   2- 2
P =   2    RSQ = 0.4998

R = 0.7070       RSQ = 0.4998           1 ITERATIONS.

  V       BETA          B
  2     0.7070       0.6060
REG. CONST. =        0.9467

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.5367      MODEL  1
RSQ REDUCED = 0.5186      MODEL  2
DIFFERENCE =  0.0180
DFN =  1.       DFD =    76.     F-RATIO =    2.961    P = 0.0856


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.5186      MODEL  2
RSQ REDUCED = 0.4998      MODEL  3
DIFFERENCE =  0.0188
DFN =  1.       DFD =    77.     F-RATIO =    3.007    P = 0.0831
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

GRADE 2 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTRCL -- COMPREHENSICN G.E.

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     42
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.


MEANS               1          2          3          4          5
               1.9643     1.7548     0.8881     0.8667     0.5000


SIGMAS              1          2          3          4          5
               0.6622     0.6562     0.9950     0.9899     0.5000


R MATRIX            1          2          3          4          5

        1      1.0000     0.7558     0.3285     0.1707     0.0539

        2      0.7558     1.0000     0.3376     0.3236     0.0327

        3      0.3285     0.3376     1.0000    -0.7814     0.8925

        4      0.1707     0.3236    -0.7814     1.0000    -0.8755

        5      0.0539     0.0327     0.8925    -0.8755     1.0000



MODEL  1 MI  CRITERION =  1

PREDICTORS =  3- 5
R = 0.7700      RSQ = 0.5929          37 ITERATIONS.

   V      BETA        B
   3    1.3686    0.9108
   4    0.9463    0.6330
   5   -0.3390   -0.4490
REG. CONST. =     0.8313
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.5712
P =  5   RSQ = 0.5720

R = 0.7563      RSQ = 0.5720          2 ITERATIONS.

  V       BETA        B
  2    0.7548    0.7617
  5    0.0293    0.0388
REG. CONST. =    0.6083


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.5712

R = 0.7558      RSQ = 0.5712          1 ITERATIONS.

  V       BETA        B
  2    0.7558    0.7627
REG. CONST. =    0.6260


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.5929      MODEL  1
RSQ REDUCED = 0.5720      MODEL  2
DIFFERENCE =  0.0209
DFN =  1.      DFD =    38.     F-RATIO =    1.950   P = 0.1674


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.5720      MODEL  2
RSQ REDUCED = 0.5712      MODEL  3
DIFFERENCE =  0.0009
DFN =  1.      DFD =    39.     F-RATIO =    0.078   P = 0.7779
```

```
     *** OUTPUT FRCM PROGRAM REGRAN ***
GRADE 3 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- COMPREHENSION G.E.
PARAMETERS
CGL  1- 5 =     5
CCL  6-10 =    28
CCL 11-15 =     3
CCL 16-20 =     2
CCL 21-25 =     1
INTERCORRELATION ANALYSIS.

MEANS             1          2          3          4          5
             2.9464     2.7964     1.4036     1.3929     0.5000

SIGMAS            1          2          3          4          5
             0.8748     0.6527     1.4848     1.4599     0.5000

R MATRIX          1          2          3          4          5

        1    1.0000     0.7683    -0.0609     0.4054    -0.2490

        2    0.7683     1.0000     0.2576     0.1851     0.0164

        3   -0.0609     0.2576     1.0000    -0.9019     0.9453

        4    0.4054     0.1851    -0.9019     1.0000    -0.9541

        5   -0.2490     0.0164     0.9453    -0.9541     1.0000


MCDEL   1 M1   CRITERION =   1
PREDICTORS =   3- 5
R = 0.8137     RSQ = 0.6621          2 ITERATICNS.
  V      BETA          B
  3     1.6330     0.9621
  4     1.8782     1.1255
  5     0.0        0.0
REG. CCNST. =      0.0284
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.5903
P =  5   RSQ = 0.6588

R = 0.8117      RSQ = 0.6588          2 ITERATIONS.

  V       BETA        B
  2     0.7726    1.0355
  5    -0.2617   -0.4579
REG. CONST. =     0.2796


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.5903

R = 0.7683      RSQ = 0.5903          1 ITERATIONS.

  V       BETA        B
  2     0.7683    1.0298
REG. CONST. =     0.0668


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.6621     MODEL  1
RSQ REDUCED = 0.6588      MODEL  2
DIFFERENCE =  0.0033
DFN =  1.     DFD =   24.     F-RATIO =   0.232    P = 0.6392


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.6588     MODEL  2
RSQ REDUCED = 0.5903      MODEL  3
DIFFERENCE =  0.0685
DFN =  1.     DFD =   25.     F-RATIO =   5.017    P = 0.0323
```

```
     *** OUTPUT FROM PROGRAM REGRAN ***

GRADE 4 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- COMPREHENSION G.E.

PARAMETERS
CCL  1- 5 =      5
CCL  6-10 =     34
CCL 11-15 =      3
CCL 16-20 =      2
CCL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS             1           2           3           4           5
             3.8529      3.5000      1.7441      1.7559      0.5000

SIGMAS            1           2           3           4           5
             1.6384      1.4381      1.9737      2.0731      0.5000

R MATRIX          1           2           3           4           5

       1     1.0000      0.9149      0.3196      0.3304      0.0036

       2     0.9149      1.0000      0.2935      0.4143     -0.0082

       3     0.3196      0.2935      1.0000     -0.7485      0.8837

       4     0.3304      0.4143     -0.7485      1.0000     -0.8470

       5     0.0036     -0.0082      0.8837     -0.8470      1.0000

MODEL  1 M1  CRITERION =  1

PREDICTORS =   3- 5
R = 0.9221      RSQ = 0.8503          32 ITERATIONS.

    V       BETA          B
    3     1.4347     1.1910
    4     1.1886     0.9394
    5    -0.2545    -0.8340
REG. CONST. =        0.5433
```

```
MODEL   2 M2   CRITERION =   1

PREDICTORS =   2- 2   5- 5
P =   2    RSQ = 0.8370
P =   5    RSQ = 0.8371

R = 0.9149       RSQ = 0.8371             2 ITERATIONS.

   V        BETA        B
   2     0.9149     1.0423
   5     0.0111     0.0363
REG. CONST. =       0.1866


MODEL   3 M3   CRITERION =   1

PREDICTORS =   2- 2
P =   2    RSQ = 0.8370

R = 0.9149       RSQ = 0.8370             1 ITERATIONS.

   V        BETA        B
   2     0.9149     1.0422
REG. CONST. =       0.2051


F-TEST   1    MODEL 1 VS MODEL 2
RSQ FULL =      0.8503      MODEL   1
RSQ REDUCED = 0.8371      MODEL   2
DIFFERENCE =   0.0132
DFN =  1.      DFD =    30.      F-RATIO =    2.652    P = 0.1103


F-TEST   2    MODEL 2 VS MODEL 3
RSQ FULL =      0.8371      MODEL   2
RSQ REDUCED = 0.8370      MODEL   3
DIFFERENCE =   0.0001
DFN =  1.      DFD =    31.      F-RATIO =    0.023    P = 0.8741
```

```
    *** OUTPUT FROM PROGRAM REGRAN ***

GRADE 5 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- COMPREHENSION G.E.

PARAMETERS
COL  1- 5 =       5
COL  6-10 =      42
COL 11-15 =       3
COL 16-20 =       2
COL 21-25 =       1
INTERCORRELATION ANALYSIS.

MEANS                  1          2          3          4          5
                  4.5238     4.4167     2.1571     2.2595     0.5000

SIGMAS                 1          2          3          4          5
                  1.2440     1.1479     2.3239     2.3802     0.5000

R MATRIX               1          2          3          4          5

        1         1.0000     0.7117     0.1526     0.1943    -0.0498

        2         0.7117     1.0000     0.1973     0.2896    -0.0892

        3         0.1526     0.1973     1.0000    -0.8812     0.9282

        4         0.1943     0.2896    -0.8812     1.0000    -0.9493

        5        -0.0498    -0.0892     0.9282    -0.9493     1.0000


MODEL   1 M1   CRITERION =  1

PREDICTORS =   3- 5
R = 0.7118       RSQ = 0.5067           2 ITERATIONS.

   V      BETA        B
   3    1.4485     0.7754
   4    1.4706     0.7686
   5    0.0        0.0
REG. CONST. =      1.1145
```

```
MODEL  2 M2  CRITERION =  1
PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.5065
P =  5   RSQ = 0.5067

R = 0.7118      RSQ = 0.5067          2 ITERATIONS.

  V       BETA        B
  2     0.7129     0.7727
  5     0.0138     0.0344
REG. CONST. =      1.0941


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.5065

R = 0.7117      RSQ = 0.5065          1 ITERATIONS.

  V       BETA        B
  2     0.7117     0.7713
REG. CONST. =      1.1172


F-TEST  1   MODEL 2 VS MODEL 3                                      0580
RSQ FULL =      0.5067      MODEL  2
RSQ REDUCED = 0.5065      MODEL  3
DIFFERENCE =  0.0002
DFN =  1.     DFD =    39.     F-RATIO =    0.015    P = 0.8988
ILF263I
```

Comparisons of At-Home Participants and Controls on ITBS Reading Skills Areas.

Level 7

Variable	Description
1	Skill area posttest raw score.
2	Skill area pretest raw score.
3	Skill area pretest raw score if At-Home participant; 0, otherwise.
4	Skill area pretest raw score if control; 0, otherwise.
5	1 if At-Home participant; 0, otherwise.

```
*** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 7 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: SILENT

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     84
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS                1         2         3         4         5
                1.5714    1.4643    0.7143    0.7500    0.5000

SIGMAS               1         2         3         4         5
                1.0152    0.8789    0.9583    0.9621    0.5000

R MATRIX             1         2         3         4         5

      1         1.0000    0.2764    0.1189    0.1341    0.0704

      2         0.2764    1.0000    0.4543    0.4611   -0.0406

      3         0.1189    0.4543    1.0000   -0.5811    0.7454

      4         0.1341    0.4611   -0.5811    1.0000   -0.7796

      5         0.0704   -0.0406    0.7454   -0.7796    1.0000


MODEL  1 M1  CRITERION =  1

PREDICTCRS =  3- 5
R = 0.3253      RSQ = 0.1059         12 ITERATICNS.

  V       BETA        B
  3     0.1436    0.1522
  4     0.4836    0.5103
  5     0.3403    0.6909
REG. CONST. =     0.7346
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.0764
P =  5   RSQ = 0.0830

R = 0.2882      RSQ = 0.0830          2 ITERATIONS.

  V       BETA        B
  2     0.2797     0.3230
  5     0.0817     0.1659
REG. CONST. =      1.0154


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.0764

R = 0.2764      RSQ = 0.0764          1 ITERATIONS.

  V       BETA        B
  2     0.2764     0.3192
REG. CONST. =      1.1040


F-TEST  1    MODEL 1 VS MODEL 2
RSQ FULL =      0.1059      MODEL  1
RSQ REDUCED = 0.0830      MODEL  2
DIFFERENCE =  0.0228
DFN =  1.     DFD =    80.     F-RATIO =    2.040    P = 0.1534


F-TEST  2    MODEL 2 VS MODEL 3
RSQ FULL =      0.0830      MODEL  2
RSQ REDUCED = 0.0764      MODEL  3
DIFFERENCE =  0.0067
DFN =  1.     DFD =    81.     F-RATIO =    0.589    P = 0.4513
```

```
  *** OUTPUT FROM PROGRAM REGRAN ***
LEVEL 7 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: SUBSTITUTIONS
ARAMETERS
COL   1- 5 =      5
COL   6-10 =     84
COL  11-15 =      3
COL  16-20 =      2
COL  21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS                1          2          3          4          5
                  17.1190    16.1905     7.9524     8.2381     0.5000

SIGMAS               1          2          3          4          5
                   2.2488     3.1148     8.3137     8.4623     0.5000

R MATRIX             1          2          3          4          5

        1          1.0000     0.5389     0.1455     0.0554     0.0423

        2          0.5389     1.0000     0.1392     0.2313    -0.0917

        3          0.1455     0.1392     1.0000    -0.9312     0.9565

        4          0.0554     0.2313    -0.9312     1.0000    -0.9735

        5          0.0423    -0.0917     0.9565    -0.9735     1.0000


MODEL   1 M1   CRITERION =   1

PREDICTORS =   3- 5
 R = 0.5567      RSQ = 0.3099           97 ITERATIONS.

   V       BETA          B
   3     1.2703       0.3436
   4     1.8083       0.4806
   5     0.5877       2.6433
 REG. CONST. =        9.1060
```

```
MODEL   2 M2   CRITERION =   1

PREDICTORS =   2- 2   5- 5
P =   2    RSQ = 0.2904
P =   5    RSQ = 0.2989

R = 0.5467      RSQ = 0.2989           2 ITERATIONS.

  V        BETA          B
  2     0.5474      0.3952
  5     0.0926      0.4163
REG. CONST. =     10.5120


MODEL   3 M3   CRITERION =   1

PREDICTORS =   2- 2
P =   2    RSQ = 0.2904

R = 0.5389      RSQ = 0.2904           1 ITERATIONS.

  V        BETA          B
  2     0.5389      0.3891
REG. CONST. =     10.8194


F-TEST   1   MODEL 1 VS MODEL 2
RSQ FULL =        0.3099      MODEL   1
RSQ REDUCED = 0.2989          MODEL   2
DIFFERENCE =   0.0110
DFN =  1.      DFD =    80.     F-RATIO =     1.276    P = 0.2610


F-TEST   2   MODEL 2 VS MODEL 3
RSQ FULL =        0.2989      MODEL   2
RSQ REDUCED = 0.2904          MODEL   3
DIFFERENCE =   0.0085
DFN =  1.      DFD =    81.     F-RATIO =     0.982    P = 0.3257
```

```
     *** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 7 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: SOUNDS

PARAMETERS
COL  1- 5 =     5
COL  6-10 =    84
COL 11-15 =     3
COL 16-20 =     2
COL 21-25 =     1
INTERCORRELATION ANALYSIS.

MEANS               1          2          3          4          5
                 11.0833    11.0119     5.3929     5.6190     0.5000

SIGMAS              1          2          3          4          5
                  3.1099     3.1187     5.8778     5.9819     0.5000

R MATRIX            1          2          3          4          5

       1          1.0000     0.5437     0.1819     0.1047     0.0038

       2          0.5437     1.0000     0.2316     0.2938    -0.0725

       3          0.1819     0.2316     1.0000    -0.8618     0.9175

       4          0.1047     0.2938    -0.8618     1.0000    -0.9393

       5          0.0038    -0.0725     0.9175    -0.9393     1.0000

MODEL   1 M1   CRITERION =   1

PREDICTORS =   3- 5
R = 0.5484      RSQ = 0.3007          37 ITERATIONS.

  V      BETA        B
  3     1.1110     0.5878
  4     0.9468     0.4922
  5    -0.1262    -0.7851
REG. CONST. =      5.5399
```

```
MODEL   2 M2  CRITERION =  1

PREDICTORS =   2- 2   5- 5
P =   2    RSQ = 0.2956
P =   5    RSQ = 0.2974

R = 0.5454       RSQ = 0.2974           2 ITERATIONS.

  V       BETA          B
  2     0.5468      0.5453
  5     0.0435      0.2705
REG. CONST. =       4.9435


MODEL   3 M3  CRITERION =  1

PREDICTORS =   2- 2
P =   2    RSQ = 0.2956

R = 0.5437       RSQ = 0.2956           1 ITERATIONS.

  V       BETA          B
  2     0.5437      0.5421
REG. CONST. =       5.1134


F-TEST   1    MODEL 1 VS MODEL 2
RSQ FULL =      0.3007       MODEL   1
RSQ REDUCED =  0.2974       MODEL   2
DIFFERENCE =   0.0033
DFN =  1.       DFD =    80.     F-RATIO =     0.377    P = 0.5483


F-TEST   2    MODEL 2 VS MODEL 3
RSQ FULL =      0.2974       MODEL   2
RSQ REDUCED =  0.2956       MODEL   3
DIFFERENCE =   0.0019
DFN =  1.       DFD =    81.     F-RATIO =     0.217    P = 0.6477
```

```
*** OUTPUT FROM PROGRAM REGRAN ***
LEVEL 7 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: RHYMES
PARAMETERS
COL  1- 5 =     5
COL  6-10 =    84
COL 11-15 =     3
COL 16-20 =     2
COL 21-25 =     1
INTERCORRELATION ANALYSIS.

MEANS              1         2         3         4         5
              4.7024    4.5833    2.3095    2.2738    0.5000

SIGMAS             1         2         3         4         5
              2.0165    1.6634    2.5634    2.5882    0.5000

R MATRIX           1         2         3         4         5

       1      1.0000    0.3534    0.1767    0.0521    0.1004

       2      0.3534    1.0000    0.3094    0.3362    0.0215

       3      0.1767    0.3094    1.0000   -0.7915    0.9010

       4      0.0521    0.3362   -0.7915    1.0000   -0.8785

       5      0.1004    0.0215    0.9010   -0.8785    1.0000

MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.3686      RSQ = 0.1358          31 ITERATIONS.
 V      BETA       B
 3    0.4723    0.3715
 4    0.6059    0.4721
 5    0.2072    0.8355
REG. CONST. =     2.3533
```

```
MODEL   2 M2   CRITERION =   1

PREDICTORS =   2- 2   5- 5
P =   2    RSQ = 0.1249
P =   5    RSQ = 0.1335

R = 0.3654      RSQ = 0.1335             2 ITERATIONS.

   V       BETA         B
   2     0.3515     0.4261
   5     0.0928     0.3743
REG. CONST. =       2.5625

.

MODEL   3 M3   CRITERION =   1

PREDICTORS =   2- 2
P =   2    RSQ = 0.1249

R = 0.3534      RSQ = 0.1249             1 ITERATIONS.

   V       BETA         B
   2     0.3534     0.4285
REG. CONST. =       2.7386


F-TEST   1    MODEL 1 VS MODEL 2
RSQ FULL =       0.1358      MODEL   1
RSQ REDUCED =  0.1335      MODEL   2
DIFFERENCE =     0.0023
DFN =   1.       DFD =    80.      F-RATIO =     0.213    P = 0.6507


F-TEST   2    MODEL 2 VS MODEL 3
RSQ FULL =       0.1335      MODEL   2
RSQ REDUCED =  0.1249      MODEL   3
DIFFERENCE =     0.0086
DFN =   1.       DFD =    81.      F-RATIO =     0.805    P = 0.3757
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 7 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: Noun

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     82
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS                1          2          3          4          5
                6.4512     4.8659     2.4756     2.3902     0.5000

SIGMAS               1          2          3          4          5
                2.4602     2.3621     2.9887     2.9124     0.5000

R MATRIX             1          2          3          4          5

        1       1.0000     0.6526     0.2577     0.2648     0.0149

        2       0.6526     1.0000     0.4271     0.3728     0.0361

        3       0.2577     0.4271     1.0000    -0.6798     0.8283

        4       0.2648     0.3728    -0.6798     1.0000    -0.8207

        5       0.0149     0.0361     0.8283    -0.8207     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.6535     RSQ = 0.4271          15 ITERATICNS.

  V      BETA         B
  3    0.7907    0.6508
  4    0.8406    0.7101
  5    0.0499    0.2454
REG. CONST. =    3.0199
```

```
MODEL   2 M2   CRITERION =  1

PREDICTORS =   2- 2  5- 5
P =  2   RSQ = 0.4258
P =  5   RSQ = 0.4259

R = 0.6526      RSQ = 0.4259          2 ITERATIONS.

  V       BETA        B
  2    0.6529    0.6800
  5   -0.0087   -0.0429
REG. CONST. =     3.1639


MODEL   3 M3   CRITERION =  1

PREDICTORS =   2- 2
P =  2   RSQ = 0.4258

R = 0.6526      RSQ = 0.4258          1 ITERATIONS.

  V       BETA        B
  2    0.6526    0.6797
REG. CONST. =     3.1441


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.4271      MODEL  1
RSQ REDUCED = 0.4259      MODEL  2
DIFFERENCE =  0.0012
DFN =  1.      DFD =    78.     F-RATIO =    0.162    P = 0.6914


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.4259      MODEL  2
RSQ REDUCED = 0.4258      MODEL  3
DIFFERENCE =  0.0001
DFN =  1.      DFD =    79.     F-RATIO =    0.010    P = 0.9155
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 7 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: VERBS

PARAMETERS
COL   1- 5 =     5
COL   6-10 =    82
CCL  11-15 =     3
COL  16-20 =     2
COL  21-25 =     1
INTERCORRELATION ANALYSIS.

MEANS               1          2          3          4          5
               5.2927     5.1951     2.6220     2.5732     0.5000

SIGMAS              1          2          3          4          5
               1.8511     1.7630     2.8697     2.8925     0.5000

R MATRIX            1          2          3          4          5

       1       1.0000     0.5019     0.1769     0.1304     0.0659

       2       0.5019     1.0000     0.2942     0.3176     0.0277

       3       0.1769     0.2942     1.0000    -0.8128     0.9137

       4       0.1304     0.3176    -0.8128     1.0000    -0.8896

       5       0.0659     0.0277     0.9137    -0.8896     1.0000


MODEL  1 M1  CRITERICN =  1

PREDICTORS =  3- 5
R = 0.5079       RSQ = 0.2580          36 ITERATICNS.

  V      BETA        B
  3    0.7235    0.4667
  4    0.8962    0.5735
  5    0.1990    0.7366
REG. CONST. =    2.2249
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.2519
P =  5   RSQ = 0.2546

R = 0.5046      RSQ = 0.2546          2 ITERATICNS.

  V      BETA        B
  2    0.5005    0.5255
  5    0.0520    0.1926
REG. CONST. =    2.4665


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.2519

R = 0.5019      RSQ = 0.2519          1 ITERATICNS.

  V      BETA        B
  2    0.5019    0.5270
REG. CONST. =    2.5549

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.2580     MODEL  1
RSQ REDUCED = 0.2546     MODEL  2
DIFFERENCE =  0.0033
DFN =  1.     DFD =    78.    F-RATIC =    0.352    P = 0.5617

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.2546     MODEL  2
RSQ REDUCED = 0.2519     MODEL  3
DIFFERENCE =  0.0027
DFN =  1.     DFD =    79.    F-RATIC =    0.287    P = 0.6004
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 7 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTRCL -- SKILL: M & C

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     82
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS              1          2          3          4          5
              3.3902     2.7805     1.4512     1.3293     0.5000

SIGMAS             1          2          3          4          5
              1.5676     1.4735     1.7261     1.7465     0.5000

R MATRIX           1          2          3          4          5

       1      1.0000     0.4489     0.2053     0.1758     0.0778

       2      0.4489     1.0000     0.4129     0.4356     0.0828

       3      0.2053     0.4129     1.0000    -0.6399     0.8408

       4      0.1758     0.4356    -0.6399     1.0000    -0.7611

       5      0.0778     0.0828     0.8408    -0.7611     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.4518       RSQ = 0.2041          18 ITERATIONS.

  V       BETA        B
  3     0.4852     0.4407
  4     0.5547     0.4979
  5     0.0893     0.2800
REG. CONST. =      1.9489
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.2015
P =  5   RSQ = 0.2032

R = 0.4507      RSQ = 0.2032          2 ITERATIONS.

  V      BETA       B
  2     0.4455    0.4739
  5     0.0409    0.1283
REG. CONST. =     2.0083


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.2015

R = 0.4489      RSQ = 0.2015           1 ITERATIONS.

  V      BETA       B
  2     0.4489    0.4775
REG. CONST. =     2.0625


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.2041      MODEL  1
RSQ REDUCED = 0.2032      MODEL  2
DIFFERENCE =  0.0009
DFN =  1.      DFD =   78.     F-RATIO =    0.092    P = C.7601

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.2032      MODEL  2
RSQ REDUCED = 0.2015      MODEL  3
DIFFERENCE =  0.0017
DFN =  1.      DFD =   79.     F-RATIO =    0.165    P = 0.6886
```

```
      *** OUTPUT FROM PRCGRAM REGRAN ***

LEVEL 7 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: INFERENCES

ARAMETERS
COL  1- 5 =      5
OL  6-10 =      80
OL 11-15 =       3
COL 16-20 =      2
COL 21-25 =      1
NTERCORRELATION ANALYSIS.

EANS                 1           2           3           4           5
                22.0750     18.5875      9.1500      9.4375      0.5000

IGMAS                1           2           3           4           5
                 6.2525      6.5949     10.3924     10.4017      0.5000

 MATRIX              1           2           3           4           5

       1         1.0000      0.6862      0.3322      0.1031      0.1000

       2         0.6862      1.0000      0.3159      0.3184     -0.0436

       3         0.3322      0.3159      1.0000     -0.7988      0.8804

       4         0.1031      0.3184     -0.7988      1.0000     -0.9073

       5         0.1000     -0.0436      0.8804     -0.9073      1.0000


MODEL   1 M1   CRITERION =  1

REDICTORS =   3- 5
R = 0.6983       RSQ = 0.4876          28 ITERATIONS.

 V       BETA          B
 3     1.0982     0.6607
 4     1.0823     0.6506
 5     0.1120     1.4002
REG. CONST. =     9.1893
```

```
MODEL   2 M2   CRITERION =   1

PREDICTORS =   2- 2   5- 5
P =   2    RSQ = 0.4708
P =   5    RSQ = 0.4877

R = 0.6984       RSQ = 0.4877              2 ITERATIONS.

   V       BETA          B
   2     0.6918      0.6559
   5     0.1301      1.6272
REG. CONST. =        9.0696


MODEL   3 M3   CRITERION =   1

PREDICTORS =   2- 2
P =   2    RSQ = 0.4708

R = 0.6862       RSQ = 0.4708              1 ITERATIONS.

   V       BETA          B
   2     0.6862      0.6505
REG. CONST. =        9.9831


F-TEST  1    MODEL 2 VS MODEL 3
RSQ FULL =        0.4877       MODEL  2
RSQ REDUCED =     0.4708       MODEL  3
DIFFERENCE =      0.0169
DFN =   1.        DFD =    77.      F-RATIO =    2.540    P = 0.1111
ILF263I
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 7 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: FACTS
PARAMETERS
COL   1- 5 =     5
COL   6-10 =    80
COL  11-15 =     3
COL  16-20 =     2
COL  21-25 =     1
INTERCORRELATION ANALYSIS.

MEANS              1          2          3          4          5
             17.3500    15.0375     7.1250     7.9125     0.5000

SIGMAS             1          2          3          4          5
              4.6155     4.5701     7.8810     8.4575     0.5000

R MATRIX           1          2          3          4          5

        1     1.0000     0.5517     0.2180     0.0949     0.0325

        2     0.5517     1.0000     0.1592     0.3920    -0.1723

        3     0.2180     0.1592     1.0000    -0.8458     0.9041

        4     0.0949     0.3920    -0.8458     1.0000    -0.9356

        5     0.0325    -0.1723     0.9041    -0.9356     1.0000


MODEL   1 M1   CRITERION =   1

PREDICTORS =   3- 5
R = 0.5672        RSQ = 0.3218          2 ITERATIONS.

   V       BETA        B
   3     1.0483     0.6139
   4     0.9816     0.5357
   5     0.0        0.0
REG. CONST. =       8.7372
```

```
MODEL   2 M2   CRITERICN =  1

PREDICTORS =   2- 2   5- 5
P =  2    RSQ = 0.3044
P =  5    RSQ = 0.3211

R = 0.5667      RSQ = 0.3211          2 ITERATICNS.

  V       BETA          B
  2     0.5743      0.5800
  5     0.1315      1.2136
REG. CONST. =       8.0209


MODEL   3 M3   CRITERICN =  1

PREDICTORS =   2- 2
P =  2    RSQ = 0.3044

R = 0.5517      RSQ = 0.3044          1 ITERATIONS.

  V       BETA          B
  2     0.5517      0.5572
REG. CONST. =       8.9717


F-TEST   1    MODEL 1 VS MODEL 2
RSQ FULL =       0.3218       MODEL   1
RSQ REDUCED =  0.3211         MODEL   2
DIFFERENCE =   0.0006
DFN =  1.      DFD =    76.      F-RATIO =     0.071     P = 0.7871


F-TEST   2    MODEL 2 VS MODEL 3
RSQ FULL =       0.3211       MODEL   2
RSQ REDUCED =  0.3044         MODEL   3
DIFFERENCE =   0.0168
DFN =  1.      DFD =    77.      F-RATIO =     1.902     P = 0.1684
```

```
*** OUTPUT FROM PROGRAM REGRAN ***
LEVEL 7 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTRCL -- SKILL: GENERALIZATIONS
PARAMETERS
COL  1- 5 =     5
COL  6-10 =    80
COL 11-15 =     3
COL 16-20 =     2
COL 21-25 =     1
INTERCORRELATION ANALYSIS.

MEANS             1          2          3          4          5
             1.4500     1.1625     0.5500     0.6125     0.5000

SIGMAS            1          2          3          4          5
             0.9069     0.9144     0.8500     0.8873     0.5000

R MATRIX          1          2          3          4          5

       1     1.0000     0.2736     0.2140     0.0769     0.0827

       2     0.2736     1.0000     0.4962     0.5552    -0.0684

       3     0.2140     0.4962     1.0000    -0.4467     0.6471

       4     0.0769     0.5552    -0.4467     1.0000    -0.6903

       5     0.0827    -0.0684     0.6471    -0.6903     1.0000


MODEL   1 M1   CRITERION =   1

PREDICTCRS =   3- 5
R = 0.2923      RSQ = 0.0854          10 ITERATICNS.

 V      BETA         B
 3    0.2787    0.2973
 4    0.2542    0.2598
 5    0.0756    0.1371
REG. CCNST. =   1.0588
```

```
MODEL  2 M2  CRITERICN =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.0748
P =  5   RSQ = 0.0852

R = 0.2919      RSQ = 0.0852          2 ITERATICNS.

  V       BETA        B
  2    0.2805     0.2783
  5    0.1019     0.1848
REG. CONST. =     1.0341


MODEL  3 M3  CRITERION =  1

PREDICTCRS =  2- 2
P =  2   RSQ = 0.0748

R = 0.2736      RSQ = 0.0748          1 ITERATICNS.

  V       BETA        B
  2    0.2736     0.2714
REG. CCNST. =     1.1346


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.0854      MODEL  1
RSQ REDUCED = 0.0852      MODEL  2
DIFFERENCE =  0.0003
DFN =  1.     DFD =   76.     F-RATIC =   0.022   P = 0.8768


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.0852      MODEL  2
RSQ REDUCED = 0.0748      MODEL  3
DIFFERENCE =  0.0103
DFN =  1.     DFD =   77.     F-RATIC =   0.869   P = 0.3565
```

Attachment E-12
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Comparisons of At-Home Participants and Controls on ITBS Reading Skills Areas.

Level 8

Variable	Description
1	Skill area posttest raw score.
2	Skill area pretest raw score.
3	Skill area pretest raw score if At-Home participant; 0, otherwise.
4	Skill area pretest raw score if control; 0, otherwise.
5	1 if At-Home participant; 0, otherwise.

```
*** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 8 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL:  SILENT

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     40
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS              1          2          3          4          5
              2.2000     1.8250     0.8750     0.9500     0.5000

SIGMAS             1          2          3          4          5
              1.1874     1.1808     1.2487     1.2237     0.5000

R MATRIX           1          2          3          4          5

       1      1.0000     0.2033    -0.1517     0.3510    -0.2526

       2      0.2033     1.0000     0.4938     0.4611    -0.0635

       3     -0.1517     0.4938     1.0000    -0.5440     0.7007

       4      0.3510     0.4611    -0.5440     1.0000    -0.7763

       5     -0.2526    -0.0635     0.7007    -0.7763     1.0000

MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.3541     RSQ = 0.1254        4 ITERATIONS.

  V      BETA       B
  3    0.0521    0.0495
  4    0.3864    0.3750
  5    0.0091    0.0216
REG. CONST. =    1.7897
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  5   RSQ = 0.0638
P =  2   RSQ = 0.0990

R = 0.3147      RSQ = 0.0990           2 ITERATICNS.

   V      BETA        B
   2    0.1880     0.1890
   5   -0.2407    -0.5716
REG. CONST. =     2.1409


MODEL  3 M3  CRITERION =  1

PREDICTCRS =  2- 2
P =  2   RSQ = 0.0413

R = 0.2033      RSQ = 0.0413           1 ITERATICNS.

   V      BETA        B
   2    0.2033     0.2044
REG. CCNST. =     1.8270

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.1254      MODEL  1
RSQ REDUCED = 0.0990      MODEL  2
DIFFERENCE =  0.0264
DFN =  1.      DFD =    36.     F-RATIC =    1.087    P = 0.3C48

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.0990      MODEL  2
RSQ REDUCED = 0.0413      MODEL  3
DIFFERENCE =  0.0577
DFN =  1.      DFD =    37.     F-RATIC =    2.370    P = 0.1285
```

```
   *** OUTPUT FROM PROGRAM REGRAN ***
EVEL 8 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL:  SUBSTITUTIONS
RAMETERS
DL  1- 5 =      5
L   6-10 =     40
L  11-15 =      3
DL 16-20 =      2
DL 21-25 =      1
TERCORRELATION ANALYSIS.

EANS                 1          2          3          4          5
                  4.4500     4.1500     1.9750     2.1750     0.5000


IGMAS                1          2          3          4          5
                  1.5322     1.5256     2.3183     2.3546     0.5000


 MATRIX              1          2          3          4          5

     1            1.0000     0.6342     0.0102     0.4009    -0.2937

     2            0.6342     1.0000     0.3050     0.3476    -0.1311

     3            0.0102     0.3050     1.0000    -0.7869     0.8519

     4            0.4009     0.3476    -0.7869     1.0000    -0.9237

     5           -0.2937    -0.1311     0.8519    -0.9237     1.0000


MODEL   1 M1   CRITERICN =  1

PREDICTORS =  3- 5
R = 0.6693       RSQ = 0.4479          34 ITERATICNS.

 V      BETA        B
 3     0.9442    0.6240
 4     0.8995    0.5853
 5    -0.2646   -0.8108
REG. CONST. =    2.3500
```

```
MODEL   2 M2  CRITERICN =  1

PREDICTORS =   2- 2  5- 5
P =  2   RSQ = 0.4022
P =  5   RSQ = 0.4474

R = 0.6688      RSQ = 0.4474          2 ITERATIONS.

  V      BETA        B
  2    0.6061    0.6087
  5   -0.2142   -0.6565
REG. CONST. =     2.2520


MODEL   3 M3  CRITERION =  1

PREDICTORS =   2- 2
P =  2   RSQ = 0.4022

R = 0.6342      RSQ = 0.4022          1 ITERATIONS.

  V      BETA        B
  2    0.6342    0.6369
REG. CONST. =     1.8067


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.4479      MODEL  1
RSQ REDUCED = 0.4474      MODEL  2
DIFFERENCE =  0.0006
DFN =  1.      DFD =    36.     F-RATIO =    0.038    P = 0.8417


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.4474      MODEL  2
RSQ REDUCED = 0.4022      MODEL  3
DIFFERENCE =  0.0451
DFN =  1.      DFD =    37.     F-RATIO =    3.020    P = 0.0870
```

```
     *** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 8 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL:  SOUNDS

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     40
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS              1          2          3          4          5
             13.6250    13.5000     6.5500     6.9500     0.5000


SIGMAS             1          2          3          4          5
              3.8710     3.4132     6.9748     7.3517     0.5000

R MATRIX           1          2          3          4          5

      1       1.0000     0.3415     0.0141     0.1452    -0.1098

      2       0.3415     1.0000     0.1313     0.3397    -0.1172

      3       0.0141     0.1313     1.0000    -0.8878     0.9391

      4       0.1452     0.3397    -0.8878     1.0000    -0.9454

      5      -0.1098    -0.1172     0.9391    -0.9454     1.0000


MODEL   1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.3800      RSQ = 0.1444          59 ITERATIONS.

  V      BETA       B
  3    0.9823    0.5452
  4    0.4164    0.2193
  5   -0.6386   -4.9438
REG. CONST. =    11.0022
```

```
MODEL   2 M2   CRITERION =   1

PREDICTORS =   2- 2   5- 5
P =   2    RSQ = 0.1166
P =   5    RSQ = 0.1216

R = 0.3487        RSQ = 0.1216            2 ITERATICNS.

  V        BETA          B
  2      0.3332       0.3779
  5     -0.0707      -0.5477
REG. CONST. =         8.7967


MODEL   3 M3   CRITERION =   1

PREDICTCRS =   2- 2
P =   2    RSQ = 0.1166

R = 0.3415        RSQ = 0.1166            1 ITERATIONS.

  V        BETA          B
  2      0.3415       0.3873
REG. CCNST. =         8.3959


F-TEST   1    MODEL 1 VS MODEL 2
RSQ FULL =      0.1444      MODEL   1
RSQ REDUCED =   0.1216      MODEL   2
DIFFERENCE =    0.0229
DFN =  1.       DFD =     36.      F-RATIC =    0.962    P = 0.3347


F-TEST   2    MODEL 2 VS MODEL 3
RSQ FULL =      0.1216      MODEL   2
RSQ REDUCED =   0.1166      MODEL   3
DIFFERENCE =    0.0049
DFN =  1.       DFD =     37.      F-RATIC =    0.208    P = 0.6555
```

```
     *** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 8 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTRCL -- SKILL:  Nouns

PARAMETERS
COL  1- 5 =     5
COL  6-10 =    40
COL 11-15 =     3
COL 16-20 =     2
COL 21-25 =     1
INTERCORRELATION ANALYSIS.

MEANS               1          2          3          4          5
               3.5000     3.1750     1.4500     1.7250     0.5000

SIGMAS              1          2          3          4          5
               1.8974     1.7591     2.0118     2.0123     0.5000

R MATRIX            1          2          3          4          5

        1      1.0000     0.4307     0.0262     0.3503    -0.1581

        2      0.4307     1.0000     0.4369     0.4373    -0.1563

        3      0.0262     0.4369     1.0000    -0.6178     0.7207

        4      0.3503     0.4373    -0.6178     1.0000    -0.8572

        5     -0.1581    -0.1563     0.7207    -0.8572     1.0000


MCDEL   1 M1  CRITERICN =  1

PREDICTORS =  3- 5
R = 0.4897      RSQ = 0.2398          18 ITERATICNS.

  V      BETA        B
  3    0.2958    0.2790
  4    0.8051    0.7591
  5    0.3161    1.1995
REG. CONST. =    1.1862
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2= 2  5= 5
P =  2   RSQ = 0.1855
P =  5   RSQ = 0.1939

R = 0.4404      RSQ = 0.1939          2 ITERATICNS.

  V      BETA        B
  2    0.4161     0.4489
  5   -0.0931    -0.3531
REG. CONST. =    2.2514


MODEL  3 M3  CRITERION =  1

PREDICTCRS =  2= 2
P =  2   RSQ = 0.1855

R = 0.4307      RSQ = 0.1855          1 ITERATIONS.

  V      BETA        B
  2    0.4307     0.4646
REG. CONST. =    2.0250


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.2398      MODEL  1
RSQ REDUCED = 0.1939      MODEL  2
DIFFERENCE =  0.0459
DFN =  1.      DFD =   36.     F-RATIC =   2.172   P = 0.1457


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.1939      MODEL  2
RSQ REDUCED = 0.1855      MODEL  3
DIFFERENCE =  0.0084
DFN =  1.      DFD =   37.     F-RATIC =   0.388   P = 0.5442
```

```
     *** OUTPUT FROM PROGRAM REGRAN ***

EVEL 8 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL:  VERBS
ARAMETERS
OL   1- 5 =     5
OL   6-10 =    40
OL  11-15 =     3
OL  16-20 =     2
OL  21-25 =     1
NTERCORRELATION ANALYSIS.

EANS                1          2          3          4          5
                3.9750     3.1750     1.7000     1.4750     0.5000

IGMAS               1          2          3          4          5
                3.0942     2.4788     2.3367     2.3873     0.5000

 MATRIX             1          2          3          4          5

     1          1.0000     0.7372     0.1926     0.5769    -0.1535

     2          0.7372     1.0000     0.5097     0.5394     0.0908

     3          0.1926     0.5097     1.0000    -0.4495     0.7275

     4          0.5769     0.5394    -0.4495     1.0000    -0.6178

     5         -0.1535     0.0908     0.7275    -0.6178     1.0000

ODEL   1 M1   CRITERION =   1

REDICTORS =   3- 5
K = 0.7721       RSQ = 0.5962          12 ITERATIONS.

  V       BETA         B
  3      0.6431     0.8516
  4      0.7828     1.0146
  5     -0.1347    -0.8333
EG. CONST. =        1.4475
```

```
MODEL   2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2     RSQ = 0.5435
P =  5     RSQ = 0.5925

R = 0.7697        RSQ = 0.5925              2 ITERATIONS.

   V       BETA         B
   2     0.7574     0.9454
   5    -0.2223    -1.3754
REG. CONST. =       1.6610


MODEL   3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2     RSQ = 0.5435

R = 0.7372        RSQ = 0.5435              1 ITERATIONS.

   V       BETA         B
   2     0.7372     0.9203
REG. CONST. =       1.0532

F-TEST   1    MODEL 1 VS MODEL 2
RSQ FULL =       0.5962       MODEL   1
RSQ REDUCED =  0.5925       MODEL   2
DIFFERENCE =   0.0037
DFN =  1.       DFD =    36.      F-RATIO =    0.329    P = 0.5765

F-TEST   2    MODEL 2 VS MODEL 3
RSQ FULL =       0.5925       MODEL   2
RSQ REDUCED =  0.5435       MODEL   3
DIFFERENCE =   0.0490
DFN =  1.       DFD =    37.      F-RATIO =    4.448    P = 0.0394
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 8 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL:  M & C

PARAMETERS
COL   1- 5 =      5
COL   6-10 =     40
COL  11-15 =      3
COL  16-20 =      2
COL  21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS                1          2          3          4          5
                3.0750     2.1750     1.0000     1.1750     0.5000

SIGMAS               1          2          3          4          5
                1.9797     1.3395     1.3964     1.4813     0.5000

R MATRIX             1          2          3          4          5

        1       1.0000     0.5512     0.0633     0.4388    -0.0884

        2       0.5512     1.0000     0.4143     0.5137    -0.1306

        3       0.0633     0.4143     1.0000    -0.5680     0.7161

        4       0.4388     0.5137    -0.5680     1.0000    -0.7932

        5      -0.0884    -0.1306     0.7161    -0.7932     1.0000


MODEL   1 M1   CRITERION =   1

PREDICTORS =  3- 5
R = 0.6382      RSQ = 0.4073          14 ITERATIONS.

  V       BETA        B
  3     0.2541     0.3602
  4     0.9962     1.3313
  5     0.5198     2.0582
REG. CONST. =      0.1214
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.3039
P =  5   RSQ = 0.3041

R = 0.5515      RSQ = 0.3041          2 ITERATIONS.

  V       BETA        B
  2     0.5491     0.8115
  5    -0.0167    -0.0660
REG. CONST. =      1.3430


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.3039

R = 0.5512      RSQ = 0.3039          1 ITERATIONS.

  V       BETA        B
  2     0.5512     0.8147
REG. CONST. =      1.3030

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.4073      MODEL  1
RSQ REDUCED = 0.3041      MODEL  2
DIFFERENCE =  0.1031
DFN =  1.      DFD =    36.     F-RATIO =    6.262   P = 0.0162

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.3041      MODEL  2
RSQ REDUCED = 0.3039      MODEL  3
DIFFERENCE =  0.0003
DFN =  1.      DFD =    37.     F-RATIO =    0.015   P = 0.9005
```

```
*** OUTPUT FROM PROGRAM REGRAN ***
LEVEL 8 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: INFERENCES
PARAMETERS
COL  1- 5 =      5
COL  6-10 =     40
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS            1          2          3          4          5
           16.3500    14.3000     7.2000     7.4000     0.5000

SIGMAS           1          2          3          4          5
            6.1382     5.7871     8.2801     8.4552     0.5000

R MATRIX         1          2          3          4          5

       1    1.0000     0.6240     0.2549     0.1775     0.0407

       2    0.6240     1.0000     0.3189     0.3722    -0.0346

       3    0.2549     0.3189     1.0000    -0.7610     0.8696

       4    0.1775     0.3722    -0.7610     1.0000    -0.8752

       5    0.0407    -0.0346     0.8696    -0.8752     1.0000

MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.6270     RSQ = 0.3932          14 ITERATIONS.

  V     BETA        B
  3    0.9110    0.6754
  4    0.8995    0.6530
  5    0.0327    0.4013
REG. CONST. =    6.4544
```

```
MODEL   2 M2   CRITERION =   1

PREDICTORS =   2- 2   5- 5
P =   2     RSQ = 0.3893
P =   5     RSQ = 0.3932

R = 0.6271        RSQ = 0.3932             2 ITERATIONS.

   V        BETA          B
   2      0.6261      0.6641
   5      0.0624      0.7657
REG. CONST. =         6.2709


MODEL   3 M3   CRITERION =   1

PREDICTORS =   2- 2
P =   2     RSQ = 0.3893

R = 0.6240        RSQ = 0.3893             1 ITERATIONS.

   V        BETA          B
   2      0.6240      0.6618
REG. CONST. =         6.6871


F-TEST   1    MODEL 2 VS MODEL 3
RSQ FULL =        0.3932        MODEL   2
RSQ REDUCED =  0.3893        MODEL   3
DIFFERENCE =   0.0039
DFN =   1.       DFD =     37.       F-RATIO =     0.237     P = 0.6346
ILF263I
```

```
*** OUTPUT FRCM PROGRAM REGRAN ***
LEVEL 8 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL:  FACTS
PARAMETERS
COL  1- 5 =      5
COL  6-10 =     40
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS             1          2          3          4          5
            13.2000    11.6750     6.0500     5.6250     0.5000

SIGMAS            1          2          3          4          5
             4.5563     4.5847     6.8591     6.4834     0.5000

R MATRIX          1          2          3          4          5

       1     1.0000     0.6554     0.3061     0.1396     0.0549

       2     0.6554     1.0000     0.4139     0.2692     0.0927

       3     0.3061     0.4139     1.0000    -0.7653     0.8820

       4     0.1396     0.2692    -0.7653     1.0000    -0.8676

       5     0.0549     0.0927     0.8820    -0.8676     1.0000

MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.6662      RSQ = 0.4438       33 ITERATICNS.

  V      BETA        B
  3    1.1514   0.7649
  4    C.7695   0.5408
  5   -0.2931  -2.6710
REG. CCNST. =   6.8660
```

```
MODEL   2 M2   CRITERION =   1

PREDICTORS =   2- 2   5- 5
P =   2    RSQ = 0.4295
P =   5    RSQ = 0.4295

R = 0.6554      RSQ = 0.4295          2 ITERATICNS.

   V       BETA        B
   2     0.6559     0.6519
   5    -0.0059    -0.0541
REG. CONST. =       5.6167


MODEL   3 M3   CRITERION =   1

PREDICTORS =   2- 2
P =   2    RSQ = 0.4295

R = 0.6554      RSQ = 0.4295          1 ITERATICNS.

   V       BETA        B
   2     0.6554     0.6513
REG. CONST. =       5.5960


F-TEST   1    MODEL 1 VS MODEL 2
RSQ FULL =      0.4438      MODEL   1
RSQ REDUCED = 0.4295        MODEL   2
DIFFERENCE =   0.0143
DFN =  1.       DFD =    36.       F-RATIO =     0.922    P = 0.3452


F-TEST   2    MODEL 2 VS MODEL 3
RSQ FULL =      0.4295      MODEL   2
RSQ REDUCED = 0.4295        MODEL   3
DIFFERENCE =   0.0000
DFN =  1.       DFD =    37.       F-RATIO =     0.002    P = 0.9612
```

```
   *** OUTPUT FROM PROGRAM REGRAN ***
EVEL 8 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: GENERALIZAITONS
ARAMETERS
DL  1- 5 =     5
DL  6-10 =    40
DL 11-15 =     3
DL 16-20 =     2
DL 21-25 =     1
NTERCORRELATION ANALYSIS.

EANS               1          2          3          4          5
              1.8750     1.6500     0.8250     0.8250     0.5000

IGMAS              1          2          3          4          5
              1.2487     0.9367     1.0219     1.0929     0.5000

 MATRIX            1          2          3          4          5

      1       1.0000    -0.1015    -0.1935     0.0939    -0.0601

      2      -0.1015     1.0000     0.3800     0.5018     0.0000

      3      -0.1935     0.3800     1.0000    -0.6094     0.8073

      4       0.0939     0.5018    -0.6094     1.0000    -0.7549

      5      -0.0601     0.0000     0.8073    -0.7549     1.0000

DDEL   1 M1   CRITERION =  1
REDICTORS =  3- 5
 = 0.2635     RSQ = 0.0694          9 ITERATIONS.
 V      BETA        B
 3   -0.4164   -0.5089
 4    0.1104    0.1261
 5    0.3580    0.8942
EG. CONST. =    1.7437
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2    RSQ = 0.0103
P =  5    RSQ = 0.0139

R = 0.1180     RSQ = 0.0139          2 ITERATICNS.

  V       BETA         B
  2    -0.1015    -0.1353
  5    -0.0601    -0.1500
REG. CONST. =     2.1733


MODEL  3 M3  CRITERION =  1

PREDICTCRS =  2- 2
P =  2    RSQ = 0.0103

R = 0.1015     RSQ = 0.0103          1 ITERATICNS.

  V       BETA         B
  2    -0.1015    -0.1353
REG. CCNST. =     2.0983


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.0694      MODEL  1
RSQ REDUCED = 0.0139      MODEL  2
DIFFERENCE =  0.0555
DFN =  1.      DFD =    36.      F-RATIC =    2.147   P = 0.1480


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.0139      MODEL  2
RSQ REDUCED = 0.0103      MODEL  3
DIFFERENCE =  0.0036
DFN =  1.      DFD =    37.      F-RATIC =    0.135   P = 0.7158
```

Comparisons of At-Home Participants and Controls on ITBS Reading Skill Areas.

Level 9

Variable	Description
1	Skill area posttest raw score.
2	Skill area pretest raw score.
3	Skill area pretest raw score if At-Home participant; 0, otherwise.
4	Skill area pretest raw score if control; 0, otherwise.
5	1 if At-Home participant; 0, otherwise.

```
*** OUTPUT FROM PROGRAM REGRAN ***
LEVEL 09 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: VERBS
PARAMETERS
COL  1- 5 =      5
COL  6-10 =     36
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS                 1          2          3          4          5
                 4.1389     3.3889     1.6389     1.7500     0.5000

SIGMAS                1          2          3          4          5
                 2.1750     1.6034     1.8879     2.1779     0.5000

R MATRIX              1          2          3          4          5

        1        1.0000     0.5182    -0.0081     0.3885    -0.2427

        2        0.5182     1.0000     0.2299     0.5369    -0.0693

        3       -0.0081     0.2299     1.0000    -0.6976     0.8681

        4        0.3885     0.5369    -0.6976     1.0000    -0.8035

        5       -0.2427    -0.0693     0.8681    -0.8035     1.0000


MODEL   1 M1   CRITERION =  1
PREDICTORS =   3- 5
R = 0.5754      RSQ = 0.3311           20 ITERATIONS.
 V       BETA       B
 3     0.8194    0.9440
 4     0.5525    0.5517
 5    -0.5073   -2.2067
REG. CONST. =     2.7295
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.2685
P =  5   RSQ = 0.3114

R = 0.5581      RSQ = 0.3114          2 ITERATIONS.

  V       BETA       B
  2     0.5038    0.6834
  5    -0.2077   -0.9037
REG. CONST. =     2.2749


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.2685

R = 0.5182      RSQ = 0.2685          1 ITERATIONS.

  V       BETA       B
  2     0.5182    0.7029
REG. CONST. =     1.7569


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.3311      MODEL  1
RSQ REDUCED = 0.3114      MODEL  2
DIFFERENCE =  0.0197
DFN =  1.      DFD =    32.     F-RATIO =    0.941    P = 0.3411

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.3114      MODEL  2
RSQ REDUCED = 0.2685      MODEL  3
DIFFERENCE =  0.0430
DFN =  1.      DFD =    33.     F-RATIO =    2.058    P = 0.1574
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 09 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: NOUNS

PARAMETERS
COL   1- 5 =     5
COL   6-10 =    36
COL  11-15 =     3
COL  16-20 =     2
COL  21-25 =     1
INTERCORRELATION ANALYSIS.

MEANS               1          2          3          4          5
               3.2500     2.8056     1.3889     1.4167     0.5000

SIGMAS              1          2          3          4          5
               1.9058     1.7767     1.9333     1.8314     0.5000

R MATRIX            1          2          3          4          5

        1      1.0000     0.6953     0.2375     0.4238    -0.1603

        2      0.6953     1.0000     0.5153     0.4261    -0.0156

        3      0.2375     0.5153     1.0000    -0.5557     0.7184

        4      0.4238     0.4261    -0.5557     1.0000    -0.7735

        5     -0.1603    -0.0156     0.7184    -0.7735     1.0000


MODEL  1 M1   CRITERION =   1

PREDICTORS =   3- 5
R = 0.7117       RSQ = 0.5064           15 ITERATIONS.

  V       BETA          B
  3     0.7242     0.7138
  4     0.7517     0.7822
  5    -0.0991    -0.3777
REG. CONST. =      1.3392
```

```
MODEL   2 M2   CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2    RSQ = 0.4834
P =  5    RSQ = 0.5057

R = 0.7112       RSQ = 0.5057            2 ITERATIONS.

  V      BETA        B
  2    0.6929     0.7433
  5   -0.1495    -0.5698
REG. CONST. =     1.4496


MODEL   3 M3   CRITERION =  1

PREDICTORS =  2- 2
P =  2    RSQ = 0.4834

R = 0.6953       RSQ = 0.4834            1 ITERATIONS.

  V      BETA        B
  2    0.6953     0.7458
REG. CONST. =     1.1577

F-TEST   1    MODEL 1 VS MODEL 2
RSQ FULL =      0.5064      MODEL   1
RSQ REDUCED = 0.5057        MODEL   2
DIFFERENCE =  0.0007
DFN =  1.       DFD =    32.      F-RATIO =    0.045    P = 0.8272

F-TEST   2    MODEL 2 VS MODEL 3
RSQ FULL =      0.5057      MODEL   2
RSQ REDUCED = 0.4834        MODEL   3
DIFFERENCE =  0.0223
DFN =  1.       DFD =    33.      F-RATIO =    1.492    P = 0.2287
```

```
     *** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 09 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: M & C

PARAMETERS
COL  1- 5 =     5
COL  6-10 =    36
COL 11-15 =     3
COL 16-20 =     2
COL 21-25 =     1
INTERCORRELATION ANALYSIS.

MEANS               1          2          3          4          5
               5.5833     4.8056     2.4167     2.3889     0.5000

SIGMAS              1          2          3          4          5
               2.9849     2.1835     2.8419     2.8701     0.5000

R MATRIX            1          2          3          4          5

      1        1.0000     0.6695     0.0303     0.4793    -0.2699

      2        0.6695     1.0000     0.3712     0.3933     0.0127

      3        0.0303     0.3712     1.0000    -0.7078     0.8504

      4        0.4793     0.3933    -0.7078     1.0000    -0.8323

      5       -0.2699     0.0127     0.8504    -0.8323     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.7264    RSQ = 0.5277          24 ITERATIONS.

   V      BETA         B
   3    0.9336    0.9806
   4    0.8366    0.8701
   5   -0.3646   -2.1768
REG. CONST. =     2.2234
```

```
MODEL   2 M2   CRITERION =  1

PREDICTORS =   2- 2   5- 5
P =  2    RSQ = 0.4482
P =  5    RSQ = 0.5257

R = 0.7251       RSQ = 0.5257            2 ITERATIONS.

   V        BETA         B
   2      0.6730     0.9200
   5     -0.2784    -1.6622
REG. CONST. =        1.9931


MODEL   3 M3   CRITERION =  1

PREDICTORS =   2- 2
P =  2    RSQ = 0.4482

R = 0.6695       RSQ = 0.4482            1 ITERATIONS.

   V        BETA         B
   2      0.6695     0.9152
REG. CONST. =        1.1853


F-TEST   1    MODEL 1 VS MODEL 2
RSQ FULL =       0.5277       MODEL  1
RSQ REDUCED =    0.5257       MODEL  2
DIFFERENCE =     0.0020
DFN =  1.        DFD =    32.      F-RATIO =    0.135    P = 0.7163


F-TEST   2    MODEL 2 VS MODEL 3
RSQ FULL =       0.5257       MODEL  2
RSQ REDUCED =    0.4482       MODEL  3
DIFFERENCE =     0.0775
DFN =  1.        DFD =    33.      F-RATIO =    5.393    P = 0.0250
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

EVEL 09 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: GENERALIZATION

ARAMETERS
OL  1- 5 =      5
OL  6-10 =     36
OL 11-15 =      3
OL 16-20 =      2
OL 21-25 =      1
NTERCORRELATION ANALYSIS.

EANS                 1          2          3          4          5
                  3.5000     2.5833     1.3333     1.2500     0.5000

IGMAS                1          2          3          4          5
                  1.8484     1.5877     1.7951     1.6223     0.5000

 MATRIX              1          2          3          4          5

       1          1.0000     0.3076     0.0419     0.2547    -0.1202

       2          0.3076     1.0000     0.5458     0.3748     0.0525

       3          0.0419     0.5458     1.0000    -0.5723     0.7428

       4          0.2547     0.3748    -0.5723     1.0000    -0.7705

       5         -0.1202     0.0525     0.7428    -0.7705     1.0000

ODEL   1 M1   CRITERION =   1

REDICTORS =   3- 5
R = 0.3427       RSQ = 0.1175          8 ITERATIONS.

 V       BETA        B
 3     0.2886     0.2972
 4     0.4040     0.4603
 5    -0.0206    -0.0762
REG. CONST. =     2.5665
```

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```
MODEL   2 M2   CRITERION =   1

PREDICTORS =   2- 2   5- 5
P =   2     RSQ = 0.0946
P =   5     RSQ = 0.1133

R = 0.3366       RSQ = 0.1133            2 ITERATIONS.

   V        BETA          B
   2     0.3148      0.3665
   5    -0.1367     -0.5055
REG. CONST. =        2.8060


MODEL   3 M3   CRITERION =   1

PREDICTORS =   2- 2
P =   2     RSQ = 0.0946

R = 0.3076       RSQ = 0.0946            1 ITERATIONS.

   V        BETA          B
   2     0.3076      0.3581
REG. CONST. =        2.5748

F-TEST   1    MODEL 1 VS MODEL 2
RSQ FULL =        0.1175       MODEL   1
RSQ REDUCED =     0.1133       MODEL   2
DIFFERENCE =      0.0042
DFN =   1.        DFD =     32.     F-RATIO =     0.152     P = 0.7007

F-TEST   2    MODEL 2 VS MODEL 3
RSQ FULL =        0.1133       MODEL   2
RSQ REDUCED =     0.0946       MODEL   3
DIFFERENCE =      0.0186
DFN =   1.        DFD =     33.     F-RATIO =     0.694     P = 0.4157
```

```
   *** OUTPUT FROM PROGRAM REGRAN ***

L VEL 09 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: INFERENCES

 RAMETERS
C L   1- 5 =      5
  L   6-10 =     36
  L  11-15 =      3
C L  16-20 =      2
C L  21-25 =      1
 TERCORRELATION ANALYSIS.

 ANS              1           2           3           4           5
             4.6111      4.3056      2.0556      2.2500      0.5000

 GMAS             1           2           3           4           5
             1.8147      1.6469      2.2724      2.6074      0.5000

RMATRIX           1           2           3           4           5

     1       1.0000      0.3837     -0.1227      0.3493     -0.2449

     2       0.3837      1.0000      0.1439      0.5062     -0.1181

     3      -0.1227      0.1439      1.0000     -0.7806      0.9046

     4       0.3493      0.5062     -0.7806      1.0000     -0.8629

     5      -0.2449     -0.1181      0.9046     -0.8629      1.0000

 DEL  1 M1  CRITERION =  1

 EDICTORS =  3- 5
 = 0.4338      RSQ = 0.1882        22 ITERATIONS.

 V      BETA        B
 3    0.5385    0.4301
 4    0.5477    0.3812
 5   -0.2573   -0.9337
 G. CONST. =    3.3363
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =   2- 2   5- 5
P =   2    RSQ = 0.1472
P =   5    RSQ = 0.1876

R = 0.4331       RSQ = 0.1876          2 ITERATIONS.

  V       BETA         B
  2     0.3598     0.3964
  5    -0.2024    -0.7347
REG. CONST. =      3.2717


MODEL  3 M3  CRITERION =  1

PREDICTORS =   2- 2
P =  2    RSQ = 0.1472

R = 0.3837       RSQ = 0.1472          1 ITERATIONS.

  V       BETA         B
  2     0.3837     0.4228
REG. CONST. =      2.7909


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.1882      MODEL  1
RSQ REDUCED = 0.1876      MODEL  2
DIFFERENCE =  0.0006
DFN =  1.       DFD =   32.     F-RATIO =    0.024    P = 0.8730

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.1876      MODEL  2
RSQ REDUCED = 0.1472      MODEL  3
DIFFERENCE =  0.0404
DFN =  1.       DFD =   33.     F-RATIO =    1.641    P = 0.2066
```

```
   *** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 09 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: FACTS

PARAMETERS
COL  1- 5 =     5
COL  6-10 =    36
COL 11-15 =     3
COL 16-20 =     2
COL 21-25 =     1
INTERCORRELATION ANALYSIS.

MEANS              1          2          3          4          5
              9.0833     8.8611     4.6111     4.2500     0.5000

SIGMAS             1          2          3          4          5
              4.2254     3.4733     5.3296     4.7806     0.5000

R MATRIX           1          2          3          4          5

       1      1.0000     0.6632    -0.0121     0.4954    -0.2695

       2      0.6632     1.0000     0.4758     0.1961     0.1040

       3     -0.0121     0.4758     1.0000    -0.7692     0.8652

       4      0.4954     0.1961    -0.7692     1.0000    -0.8890

       5     -0.2695     0.1040     0.8652    -0.8890     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.7609     RSQ = 0.5790         13 ITERATIONS.

  V      BETA        B
  3    0.8916    0.7068
  4    1.2090    1.0686
  5    0.0339    0.2867
REG. CONST. =    1.1390
```

```
MODEL   2 M2  CRITERION =  1
____________________________________________________________________
PREDICTORS =   2- 2  5- 5
P =  2   RSQ = 0.4399
P =  5   RSQ = 0.5557
____________________________________________________________________
R = 0.7455      RSQ = 0.5557           2 ITERATIONS.
____________________________________________________________________
  V       BETA         B
  2    0.6988    0.8501
  5   -0.3422   -2.8918
____________________________________________________________________
REG. CONST. =     2.9962

____________________________________________________________________

MODEL   3 M3  CRITERION =  1
____________________________________________________________________
PREDICTORS =   2- 2
P =  2   RSQ = 0.4399
____________________________________________________________________
R = 0.6632      RSQ = 0.4399           1 ITERATIONS.

  V       BETA         B
____________________________________________________________________
  2    0.6632    0.8068
REG. CONST. =     1.9338


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.5790      MODEL  1
RSQ REDUCED = 0.5557      MODEL  2
DIFFERENCE =  0.0233
DFN =  1.      DFD =    32.     F-RATIO =    1.769    P = 0.1901
____________________________________________________________________

F-TEST  2   MODEL 2 VS MODEL 3
____________________________________________________________________
RSQ FULL =      0.5557      MODEL  2
RSQ REDUCED = 0.4399      MODEL  3
DIFFERENCE =  0.1158
____________________________________________________________________
DFN =  1.      DFD =    33.     F-RATIO =    8.603    P = 0.0061
```

Comparisons of At-Home Participants and Controls on ITBS Reading Skill Areas.

Level 10

Variable	Description
1	Skill area posttest raw score.
2	Skill area pretest raw score.
3	Skill area pretest raw score if At-Home participant; 0, otherwise.
4	Skill area pretest raw score if control; 0, otherwise.
5	1 if At-Home participant; 0, otherwise.

```
*** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 10 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: VERBS

PARAMETERS
COL  1- 5 =     5
COL  6-10 =    22
COL 11-15 =     3
COL 16-20 =     2
COL 21-25 =     1
INTERCORRELATION ANALYSIS.

MEANS              1          2          3          4          5
              6.5909     6.2273     3.1818     3.0455     0.5000

SIGMAS             1          2          3          4          5
              2.3093     1.8570     3.4197     3.3368     0.5000

R MATRIX           1          2          3          4          5

       1      1.0000     0.6259     0.1821     0.1617     0.0197

       2      0.6259     1.0000     0.3156     0.2331     0.0734

       3      0.1821     0.3156     1.0000    -0.8492     0.9304

       4      0.1617     0.2331    -0.8492     1.0000    -0.9127

       5      0.0197     0.0734     0.9304    -0.9127     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.6271     RSQ = 0.3933        31 ITERATIONS.

   V      BETA        B
   3    1.1995    0.8100
   4    1.0936    0.7568
   5   -0.0982   -0.4537
REG. CONST. =     1.9357
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2= 2  5= 5
P =  2   RSQ = 0.3917
P =  5   RSQ = 0.3924

R = 0.6264      RSQ = 0.3924          2 ITERATIONS.

  V      BETA        B
  2    0.6278     0.7807
  5   -0.0264    -0.1220
REG. CONST. =     1.7901


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2= 2
P =  2   RSQ = 0.3917

R = 0.6259      RSQ = 0.3917          1 ITERATIONS.

  V      BETA        B
  2    0.6259     0.7783
REG. CONST. =     1.7442

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.3933      MODEL  1
RSQ REDUCED = 0.3924      MODEL  2
DIFFERENCE =  0.0009
DFN =  1.      DFD =    18.     F-RATIO =    0.027    P = 0.8667


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.3924      MODEL  2
RSQ REDUCED = 0.3917      MODEL  3
DIFFERENCE =  0.0007
DFN =  1.      DFD =    19.     F-RATIO =    0.022    P = 0.8791
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 10 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: NOUNS

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     22
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS              1          2          3          4          5
              5.4545     5.1818     2.5909     2.5909     0.5000

SIGMAS             1          2          3          4          5
              2.0165     1.6959     2.7578     2.9489     0.5000

R MATRIX           1          2          3          4          5

       1      1.0000     0.2815     0.0907     0.0771     0.0451

       2      0.2815     1.0000     0.1908     0.3966    -0.0

       3      0.0907     0.1908     1.0000    -0.8254     0.9395

       4      0.0771     0.3966    -0.8254     1.0000    -0.8786

       5      0.0451    -0.0        0.9395    -0.8786     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.2856      RSQ = 0.0816        26 ITERATIONS.

  V      BETA        B
  3    0.4359    0.3187
  4    0.5021    0.3433
  5    0.0737    0.2973
REG. CONST. =    3.5906
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.0793
P =  5   RSQ = 0.0813

R = 0.2851      RSQ = 0.0813          2 ITERATIONS.

  V       BETA        B
  2     0.2815     0.3348
  5     0.0451     0.1818
REG. CONST. =      3.6289


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.0793

R = 0.2815      RSQ = 0.0793          1 ITERATIONS.

  V       BETA        B
  2     0.2815     0.3348
REG. CONST. =      3.7198


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.0816     MODEL  1
RSQ REDUCED = 0.0813     MODEL  2
DIFFERENCE =  0.0003
DFN =  1.      DFD =   18.     F-RATIO =    0.005    P = 0.9417


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.0813     MODEL  2
RSQ REDUCED = 0.0793     MODEL  3
DIFFERENCE =  0.0020
DFN =  1.      DFD =   19.     F-RATIO =    0.042    P = 0.8338
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 10 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: M & C

PARAMETERS
COL  1- 5 =     5
COL  6-10 =    22
COL 11-15 =     3
COL 16-20 =     2
COL 21-25 =     1

INTERCORRELATION ANALYSIS.

MEANS           1          2          3          4          5
           8.6364     7.4545     3.7273     3.7273     0.5000

SIGMAS          1          2          3          4          5
           2.8532     2.4813     4.0134     4.2231     0.5000

R MATRIX        1          2          3          4          5

    1      1.0000     0.6269     0.0707     0.3011    -0.0637

    2      0.6269     1.0000     0.2224     0.3762    -0.0

    3      0.0707     0.2224     1.0000    -0.8197     0.9287

    4      0.3011     0.3762    -0.8197     1.0000    -0.8826

    5     -0.0637    -0.0        0.9287    -0.8826     1.0000


MODEL  1 M1  CRITERICN =  1

PREDICTORS =  3- 5
R = 0.6308      RSQ = 0.3980          4 ITERATIONS.

  V     BETA       B
  3    0.9655    0.6864
  4    1.0956    0.7402
  5    0.0034    0.0196
REG. CONST. =    3.3094
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.3930
P =  5   RSQ = 0.3970

R = 0.6301      RSQ = 0.3970          2 ITERATIONS.

  V      BETA        B
  2    0.6269     0.7208
  5   -0.0637    -0.3636
REG. CONST. =     3.4449


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.3930

R = 0.6269      RSQ = 0.3930          1 ITERATIONS.

  V      BETA        B
  2    0.6269     0.7208
REG. CONST. =     3.2631


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.3980      MODEL  1
RSQ REDUCED = 0.3970        MODEL  2
DIFFERENCE =  0.0009
DFN =  1.      DFD =    18.      F-RATIO =    0.028    P = 0.8640

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.3970      MODEL  2
RSQ REDUCED = 0.3930        MODEL  3
DIFFERENCE =  0.0041
DFN =  1.      DFD =    19.      F-RATIO =    0.128    P = 0.7243
```

```
*** OUTPUT FROM PROGRAM REGRAN ***
LEVEL 10 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: GENERALIZATION

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     22
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS               1          2          3          4          5
               4.4545     4.1364     2.1364     2.0000     0.5000

SIGMAS              1          2          3          4          5
               2.5536     1.4553     2.4177     2.1950     0.5000

R MATRIX            1          2          3          4          5

         1     1.0000    -0.0044     0.1814    -0.2027     0.2848

         2    -0.0044     1.0000     0.4469     0.1708     0.0937

         3     0.1814     0.4469     1.0000    -0.8051     0.8837

         4    -0.2027     0.1708    -0.8051     1.0000    -0.9111

         5     0.2848     0.0937     0.8837    -0.9111     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
 R = 0.3502      RSQ = 0.1226          13 ITERATIONS.

  V      BETA          B
  3   -0.3288    -0.3473
  4    0.3289     0.3826
  5    0.8740     4.4638
REG. CONST. =     2.1993
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  5   RSQ = 0.0811
P =  2   RSQ = 0.0821

R = 0.2865      RSQ = 0.0821          2 ITERATIONS.

  V       BETA        B
  2    -0.0314    -0.0551
  5     0.2878     1.4696
REG. CONST. =     3.9477


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.0000

R = 0.0044      RSQ = 0.0000          1 ITERATIONS.

  V       BETA        B
  2    -0.0044    -0.0078
REG. CONST. =     4.4868

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.1226      MODEL  1
RSQ REDUCED = 0.0821      MODEL  2
DIFFERENCE =  0.0405
DFN =  1.      DFD =    18.     F-RATIO =    0.831    P = 0.3772

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.0821      MODEL  2
RSQ REDUCED = 0.0000      MODEL  3
DIFFERENCE =  0.0821
DFN =  1.      DFD =    19.     F-RATIO =    1.699    P = 0.2058
```

```
    *** OUTPUT FROM PROGRAM REGRAN ***

EVEL 10 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: INFERENCES

RAMETERS
OL   1- 5 =      5
L    6-10 =     22
L   11-15 =      3
OL  16-20 =      2
OL  21-25 =      1
TERCORRELATION ANALYSIS.

ANS                 1          2          3          4          5
               4.9545     4.9545     2.1364     2.8182     0.5000

GMAS                1          2          3          4          5
               2.4583     2.0993     2.5637     3.1426     0.5000

R MATRIX            1          2          3          4          5

       1       1.0000     0.3343     0.4049    -0.1070     0.2034

       2       0.3343     1.0000     0.1025     0.5844    -0.3248

       3       0.4049     0.1025     1.0000    -0.7473     0.8333

       4      -0.1070     0.5844    -0.7473     1.0000    -0.8968

       5       0.2034    -0.3248     0.8333    -0.8968     1.0000


ODEL   1 M1   CRITERION =  1

EDICTORS =  3- 5
= 0.5017      RSQ = 0.2517          19 ITERATIONS.

V      BETA        B
3    0.7655    0.7340
4    0.3997    0.3127
5   -0.0761   -0.3739
G. CONST. =    2.6922
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.1118
P =  5   RSQ = 0.2206

R = 0.4696     RSQ = 0.2206          2 ITERATIONS.

  V      BETA       B
  2    0.4476    0.5241
  5    0.3488    1.7147
REG. CONST. =    1.5005


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.1118

R = 0.3343     RSQ = 0.1118          1 ITERATIONS.

  V      BETA       B
  2    0.3343    0.3915
REG. CONST. =    3.0150

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.2517      MODEL  1
RSQ REDUCED = 0.2206      MODEL  2
DIFFERENCE =  0.0311
DFN =  1.       DFD =    18.     F-RATIO =    0.749    P = 0.4024

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.2206      MODEL  2
RSQ REDUCED = 0.1118      MODEL  3
DIFFERENCE =  0.1088
DFN =  1.       DFD =    19.     F-RATIO =    2.652    P = 0.1166
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 10 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: FACTS

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     22
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS           1          2          3          4          5
          10.2273    10.0909     5.0909     5.0000     0.5000

SIGMAS          1          2          3          4          5
           3.0441     3.3016     5.5752     5.5432     0.5000

R MATRIX        1          2          3          4          5

     1     1.0000     0.3688     0.1113     0.1077    -0.1045

     2     0.3688     1.0000     0.3058     0.2881     0.0275

     3     0.1113     0.3058     1.0000    -0.8237     0.9131

     4     0.1077     0.2881    -0.8237     1.0000    -0.9020

     5    -0.1045     0.0275     0.9131    -0.9020     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.5186      RSQ = 0.2690        16 ITERATIONS.

  V      BETA         B
  3    1.2447    0.6796
  4    0.0563    0.0309
  5   -1.1904   -7.2471
REG. CONST. =   10.2362
```

```
MODEL   2 M2  CRITERION =  1

PREDICTORS =   2- 2   5- 5
P =  2    RSQ = 0.1360
P =  5    RSQ = 0.1492

R = 0.3862       RSQ = 0.1492           2 ITERATIONS.

  V       BETA          B
  2     0.3720      0.3429
  5    -0.1148     -0.6987
REG. CONST. =       7.1160


MODEL   3 M3  CRITERION =  1

PREDICTORS =   2- 2
P =  2    RSQ = 0.1360

R = 0.3688       RSQ = 0.1360           1 ITERATIONS.

  V       BETA          B
  2     0.3688      0.3400
REG. CONST. =       6.7961

F-TEST   1    MODEL 1 VS MODEL 2
RSQ FULL =       0.2690      MODEL   1
RSQ REDUCED =    0.1492      MODEL   2
DIFFERENCE =     0.1198
DFN =  1.      DFD =    18.     F-RATIO =     2.950    P = 0.0998

F-TEST   2    MODEL 2 VS MODEL 3
RSQ FULL =       0.1492      MODEL   2
RSQ REDUCED =    0.1360      MODEL   3
DIFFERENCE =     0.0132
DFN =  1.      DFD =    19.     F-RATIO =     0.294    P = 0.5999
```

Comparisons of At-Home Participants and Controls on ITBS Reading Skill Areas.

Level 11

Variable	Description
1	Skill area posttest raw score.
2	Skill area pretest raw score.
3	Skill area pretest raw score if At-Home participant; 0, otherwise.
4	Skill area pretest raw score if control; 0, otherwise.
5	1 if At-Home participant; 0, otherwise.

```
    *** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 11 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: VERBS

PARAMETERS
COL   1- 5 =      5
OL    6-10 =     24
OL   11-15 =      3
COL  16-20 =      2
COL  21-25 =      1
INTERCORRELATIUN ANALYSIS.

MEANS               1           2           3           4           5
               7.6250      6.2083      3.1667      3.0417      0.5000

SIGMAS              1           2           3           4           5
               2.4801      2.5328      3.6591      3.5057      0.5000

 MATRIX             1           2           3           4           5

       1       1.0000      0.5232      0.0895      0.2845     -0.1176

       2       0.5232      1.0000      0.4054      0.2994      0.0494

       3       0.0895      0.4054      1.0000     -0.7509      0.8654

       4       0.2845      0.2994     -0.7509      1.0000     -0.8676

       5      -0.1176      0.0494      0.8654     -0.8676      1.0000


MODEL   1 M1  CRITERION =  1

PREDICTORS =  3- 5
R = 0.5425     RSQ = 0.2943        24 ITERATIONS.

  V       BETA        B
  3     0.7538    0.5110
  4     0.7485    0.5295
  5    -0.1177   -0.5838
EG. CONST. =     4.6883
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.2737
P =  5   RSQ = 0.2943

R = 0.5425       RSQ = 0.2943           2 ITERATIONS.

  V      BETA        B
  2    0.5303    0.5193
  5   -0.1438   -0.7131
REG. CONST. =    4.7578


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.2737

R = 0.5232       RSQ = 0.2737           1 ITERATIONS.

  V      BETA        B
  2    0.5232    0.5123
REG. CONST. =    4.4444


F-TEST  1   MODEL 2 VS MODEL 3
RSQ FULL =      0.2943     MODEL  2
RSQ REDUCED = 0.2737     MODEL  3
DIFFERENCE =  0.0206
DFN =  1.     DFD =    21.     F-RATIO =    0.614    P = 0.4479
ILF263I
```

```
*** OUTPUT FROM PROGRAM REGRAN ***

LEVEL II -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL:   NOUNS

PARAMETERS
COL   1- 5 =       5
COL   6-10 =      24
COL  11-15 =       3
COL  16-20 =       2
COL  21-25 =       1
INTERCORRELATION ANALYSIS.

MEANS                 1           2           3           4           5
                 5.6250      4.9167      2.4583      2.4583      0.5000

SIGMAS                1           2           3           4           5
                 1.9108      1.8690      2.7535      2.8281      0.5000

R MATRIX              1           2           3           4           5

        1        1.0000      0.5863      0.3019      0.0935      0.0218

        2        0.5863      1.0000      0.2989      0.3698     -0.0

        3        0.3019      0.2989      1.0000     -0.7761      0.8928

        4        0.0935      0.3698     -0.7761      1.0000     -0.8692

        5        0.0218     -0.0         0.8928     -0.8692      1.0000


MODEL   1 M1   CRITERION =   1

PREDICTORS =   3- 5
R = 0.6674      RSQ = 0.4454         29 ITERATIONS.

   V       BETA        B
   3     1.3967     0.9693
   4     0.4490     0.3033
   5    -0.8381    -3.2027
REG. CONST. =       4.0978
```

```
MODEL   2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.3437
P =  5   RSQ = 0.3442

R = 0.5867      RSQ = 0.3442             2 ITERATICNS.

  V      BETA        B
  2    0.5863    0.5994
  5    0.0218    0.0833
REG. CONST. =    2.6363


MODEL   3 M3  CRITERICN =  1

PREDICTCRS =  2- 2
P =  2   RSC = 0.3437

R = 0.5863      RSQ = 0.3437             1 ITERATICNS.

  V      BETA        B
  2    0.5863    0.5994
REG. CCNST. =    2.6779

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.4454      MCDEL  1
RSQ REDUCED = 0.3442      MODEL  2
DIFFERENCE =  0.1012
DFN =  1.      DFD =   20.      F-RATIC =   3.65C   P = C.C675

F-TEST  2   MODEL 2 VS MCDEL 3
RSQ FULL =      0.3442      MODEL  2
RSQ REDUCED = 0.3437      MODEL  3
CIFFERENCE =  0.0005
DFN =  1.      DFD =   21.      F-RATIC =   0.015   P = 0.8986
```

```
    *** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 11 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL:  M & C

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     24
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS                1           2           3           4           5
                8.2083      6.6667      3.2083      3.4583      0.5000

SIGMAS               1           2           3           4           5
                2.6923      2.4267      3.5471      3.9368      0.5000

R MATRIX             1           2           3           4           5

        1       1.0000      0.7504     -0.0351      0.4942     -0.2321

        2       0.7504      1.0000      0.1727      0.4609     -0.1030

        3      -0.0351      0.1727      1.0000     -0.7946      0.9045

        4       0.4942      0.4609     -0.7946      1.0000     -0.8785

        5      -0.2321     -0.1030      0.9045     -0.8785      1.0000


MODEL   1 M1   CRITERION =   1

PREDICTORS =   3- 5
R = 0.7688       RSQ = 0.5911             2 ITERATIONS.

  V       BETA       B
  3     0.9700     0.7362
  4     1.2649     0.8651
  5    0.0         0.0
REG. CONST. =      2.8546
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSC = 0.5631
P =  5   RSC = 0.5874

R = 0.7664     RSQ = 0.5874         2 ITERATICNS.

  V      BETA       B
  2    0.7343    0.8147
  5   -0.1565   -0.8427
REG. CCNST. =    3.1986


MODEL  3 M3  CRITERION =  1

PREDICTCRS =  2- 2
P =  2   RSC = 0.5631

R = 0.7504     RSQ = 0.5631         1 ITERATICNS.

  V      BETA       B
  2    0.7504    0.8325
REG. CCNST. =    2.6580


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =    0.5911     MODEL  1
RSQ REDUCED = 0.5874     MODEL  2
DIFFERENCE =  0.0037
DFN =  1.     DFD =   20.     F-RATIO =   0.181   P = 0.6776


F-TEST  2   MCDEL 2 VS MCDEL 3
RSC FULL =    0.5874     MODEL  2
RSQ REDUCED = 0.5631     MODEL  3
DIFFERENCE =  0.0242
DFN =  1.     DFD =   21.     F-RATIO =   1.233   P = 0.2791
```

```
*** OUTPUT FROM PROGRAM REGRAN ***
LEVEL 11 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL: GENERALIZATION

PARAMETERS
COL   1- 5 =      5
COL   6-10 =     24
COL  11-15 =      3
COL  16-20 =      2
COL  21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS                 1          2          3          4          5
                 7.5417     6.9167     3.2500     3.6667     0.5000

SIGMAS                1          2          3          4          5
                 3.5116     3.3901     4.2155     4.1899     0.5000

R MATRIX              1          2          3          4          5

         1       1.0000     0.7388     0.2385     0.3578    -0.1068

         2       0.7388     1.0000     0.4096     0.3970    -0.1229

         3       0.2385     0.4096     1.0000    -0.6747     0.7710

         4       0.3578     0.3970    -0.6747     1.0000    -0.8751

         5      -0.1068    -0.1229     0.7710    -0.8751     1.0000


MODEL   1 M1   CRITERION =   1

PREDICTORS =   3- 5
R = 0.7507      RSQ = 0.5635         25 ITERATIONS.

 IV      BETA        B
  3    0.7983    0.6650
  4    1.1197    0.9385
  6    0.2576    1.8095
REG. CONST. =    1.0347
```

```
MODEL   2 M2   CRITERION =  1

PREDICTORS =   2- 2  5- 5
P =  2   RSQ = 0.5458
P =  5   RSQ = 0.5461

R = 0.7390      RSQ = 0.5461          2 ITERATIONS.

   V       BETA         B
   2     0.7368     0.7632
   5    -0.0162    -0.1140
REG. CONST. =      2.3199


MODEL   3 M3   CRITERION =  1

PREDICTORS =   2- 2
P =  2   RSQ = 0.5458

R = 0.7388      RSQ = 0.5458          1 ITERATIONS.

   V       BETA         B
   2     0.7388     0.7653
REG. CONST. =      2.2486


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.5635      MODEL  1
RSQ REDUCED = 0.5461      MODEL  2
DIFFERENCE =  0.0174
DFN =  1.      DFD =    20.     F-RATIO =    0.799    P = 0.3855

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.5461      MODEL  2
RSQ REDUCED = 0.5458      MODEL  3
DIFFERENCE =  0.0003
DFN =  1.      DFD =    21.     F-RATIO =    0.012    P = 0.9101
```

```
*** CUTPUT FRCM PRCGRAM REGRAN ***
LEVEL 11 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL:  INFERENCES
ARAMETERS
COL  1- 5 =      5
COL  6-10 =     24
OL 11-15 =      3
OL 16-20 =      2
COL 21-25 =      1
NTERCORRELATION ANALYSIS.

EANS              1          2          3          4          5
             6.5833     6.0417     3.2083     2.8333     0.5000

IGMAS             1          2          3          4          5
             3.4510     2.8059     3.7525     3.4601     0.5000

 MATRIX           1          2          3          4          5

     1       1.0000     0.6903     0.3252     0.2070     0.1690

     2       0.6903     1.0000     0.4740     0.2968     0.1336

     3       0.3252     0.4740     1.0000    -0.7001     0.8550

     4       0.2070     0.2968    -0.7001     1.0000    -0.8189

     5       0.1690     0.1336     0.8550    -0.8189     1.0000


MODEL   1 M1   CRITERION =  1

REDICTCRS =  3- 5
R = 0.7156       RSQ = 0.5121          28 ITERATIONS.

 V        BETA          B
 3      0.6810     0.6263
 4      1.0450     1.0423
 5      0.4395     3.0338
EG. CCNST. =       0.1040
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.4765
P =  5   RSQ = 0.4825

R = 0.6946       RSQ = 0.4825            2 ITERATIONS.

  V       BETA        B
  2     0.6798     0.8361
  5     0.0782     0.5396
REG. CONST. =      1.2621


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.4765

R = 0.6903       RSQ = 0.4765            1 ITERATIONS.

  V       BETA        B
  2     0.6903     0.8490
REG. CONST. =      1.4542

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.5121      MODEL  1
RSQ REDUCED = 0.4825      MODEL  2
DIFFERENCE =  0.0297
DFN =  1.      DFD =    20.    F-RATIO =    1.217    P = 0.2829

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.4825      MODEL  2
RSQ REDUCED = 0.4765      MODEL  3
DIFFERENCE =  0.0060
DFN =  1.      DFD =    21.    F-RATIO =    0.244    P = 0.6318
```

```
     *** OUTPUT FROM PROGRAM REGRAN ***

LEVEL 11 -- AT HOME PROGRAM 12/80 -- 10 WEEK VS CONTROL -- SKILL:  FACTS

PARAMETERS
COL  1- 5 =      5
COL  6-10 =     24
COL 11-15 =      3
COL 16-20 =      2
COL 21-25 =      1
INTERCORRELATION ANALYSIS.

MEANS  .            1          2          3          4          5
               8.2917     7.5000     3.5833     3.9167     0.5000

SIGMAS              1          2          3          4          5
               3.2975     3.1623     4.2516     4.4714     0.5000

R MATRIX            1          2          3          4          5

        1      1.0000     0.7053     0.2345     0.2758    -0.0885

        2      0.7053     1.0000     0.3006     0.4214    -0.1054

        3      0.2345     0.3006     1.0000    -0.7383     0.8428

        4      0.2758     0.4214    -0.7383     1.0000    -0.8759

        5     -0.0885    -0.1054     0.8428    -0.8759     1.0000


MODEL  1 M1  CRITERION =  1

PREDICTORS =  3- 5
 R = 0.7117      RSQ = 0.5065          30 ITERATIONS.

   V      BETA        B
   3    1.0608    0.8227
   4    0.8629    0.6364
   5   -0.2237   -1.4755
 REG. CONST. =    3.5890
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSC = 0.4974
P =  5   RSC = 0.4976

R = 0.7054      RSQ = 0.4976             2 ITERATIONS.

  V       BETA        B
  2     0.7C38     0.7338
  5    -0.0143    -0.0941
REG. CCNST. =      2.8349


MODEL  3 M3  CRITERICN =  1

PREDICTORS =  2- 2
P =  2   RSC = 0.4974

R = 0.7053      RSQ = 0.4974             1 ITERATICNS.

  V       BETA        B
  2     0.7053     0.7354
REG. CCNST. =      2.7760


F-TEST  1   MODEL 1 VS MCDEL 2
RSQ FULL =      0.5065     MODEL  1
RSQ REDUCED = 0.4976     MODEL  2
DIFFERENCE =  0.0089
DFN =  1.      DFD =    20.     F-RATIO =    0.363    P = 0.5603


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.4976     MODEL  2
RSQ REDUCEC = 0.4974     MODEL  3
DIFFERENCE =  0.0002
DFN =  1.      DFD =    21.     F-RATIO =    0.008    P = 0.9250
```

Comparisons of Twenty Week At-Home Participants and Matched Controls on ITBS Average Reading Grade Equivalent Gains.

Grades 1-5

Variable	Description
1	Fall, 1980, Average Reading grade equivalent.
2	Spring, 1980, Average Reading grade equivalent.
3	Spring, 1980, Average Reading grade equivalent if 20 week participant; 0, if control.
4	Spring, 1980, Average Reading grade equivalent if control; 0, if participant.
5	1 if 20 week participant; 0, if control.

```
GRADES 2-6  AT HOME PROGRAM 12/80--20WEEK STUDENTS VS CONTROLS--READ TOTAL

PARAMETERS
COL  1- 5 =     5
COL  6-10 =    72
COL 11-15 =     3
COL 16-20 =     2
COL 21-25 =     1

DATA FORMAT = (4F2.1,F1)

MEANS              1          2          3          4          5
               2.4819     2.1431     1.0625     1.0806      .5000

SIGMAS             1          2          3          4          5
               1.2507     1.2567     1.3911     1.3930      .5000

R MAT              1          2          3          4          5

      1        1.0000      .9172      .3663      .4617     -.0433

      2         .9172     1.0000      .4502      .4526     -.0144

      3         .3663      .4502     1.0000     -.5925      .7638

      4         .4617      .4526     -.5925     1.0000     -.7757

      5        -.0433     -.0144      .7638     -.7757     1.0000


MODEL  1     CRITERION =  1

PREDICTORS =  3- 5
R =  .9191      RSQ =  .8448        28 ITERATIONS.

  V      BETA        B
  3      .9590     .8622
  4     1.0744     .9646
  5      .0573     .1434
REG. CONST. =      .4518
```

```
MODEL  2      CRITERION =  1

PREDICTORS =   2- 2   5- 5
P =  2    RSQ =   .8412
P =  5    RSQ =   .8421

R =  .9177       RSQ =  .8421          2 ITERATIONS.

  V        BETA        B
  2       .9167       .9123
  5     -.0301      -.0754
REG. CONST. =         .5645


MODEL  3      CRITERION =  1

PREDICTORS =   2- 2
P =  2    RSQ =   .8412

R =  .9172       RSQ =  .8412          1 ITERATIONS.

  V        BETA        B
  2       .9172       .9128
REG. CONST. =         .5258


F-TEST  1     TEST FOR EQUAL SLOPES
RSQ FULL =         .8448      MODEL  1
RSQ REDUCED =      .8421      MODEL  2
DIFFERENCE =       .0027
DFN =   1        DFD =    68      F-RATIO =    1.178   P =  .2813

F-TEST  2     TEST FOR EQUAL INTERCEPTS
RSQ FULL =         .8421      MODEL  2
RSQ REDUCED =      .8412      MODEL  3
DIFFERENCE =       .0009
DFN =   1        DFD =    69      F-RATIO =     .397   P =  .5379
```

Comparison of New and Repeating At-Home Participants on Average Reading Grade Equivalent Scores.

Variable	Description
1	Fall, 1980, average reading grade equivalent.
2	Spring, 1980, average reading grade equivalent.
3	Spring, 1980, average reading grade equivalent if new participant; 0, otherwise.
4	Spring, 1980, average reading grade equivalent if repeating participant; 0, otherwise.
5	1 if repeating participant; 0, otherwise.

80.61

Attachment E-17
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```
*** OUTPUT FROM PROGRAM REGRAN ***

ALL GRADES -- AT HOME PROGRAM 12/80 -- NEW VS OLD PARTIC.  -- READING TOTAL G.E.

ARAMETERS
COL  1- 5 =     5
COL  6-10 =   190
OL 11-15 =     3
OL 16-20 =     2
(OL 21-25 =     1

NTERCORRELATION ANALYSIS.

EANS              1          2          3          4          5
             2.6553     2.3842     2.0247     0.3595     0.1526

IGMAS             1          2          3          4          5
             1.4000     1.3838     1.5833     0.9294     0.3596

R MATRIX          1          2          3          4          5

       1     1.0000     0.9377     0.7705     0.0835    -0.0188

       2     0.9377     1.0000     0.8120     0.1057    -0.0089

       3     0.7705     0.8120     1.0000    -0.4946    -0.5427

       4     0.0835     0.1057    -0.4946     1.0000     0.9113

       5    -0.0188    -0.0089    -0.5427     0.9113     1.0000

MODEL  1 M1  CRITERION =  1

REDICTORS =  3- 5
R = 0 9378     RSQ = 0.8795        5 ITERATIONS.

 V     BETA        B
 3   1.0753   0.9508
 4   0.6118   0.9216
     0.0072   0.0280
RF . CONST. =  0.3945
```

```
MODEL  2 M2  CRITERION =  1

PREDICTORS =  2- 2  5- 5
P =  2   RSQ = 0.8792
P =  5   RSQ = 0.8793

R = 0.9377       RSQ = 0.8793             2 ITERATIONS.

  V       BETA          B
  2     0.9376     0.9485
  5    -0.0105    -0.0409
REG. CONST. =      0.4000


MODEL  3 M3  CRITERION =  1

PREDICTORS =  2- 2
P =  2   RSQ = 0.8792

R = 0.9377       RSQ = 0.8792             1 ITERATIONS.

  V       BETA          B
  2     0.9377     0.9486
REG. CONST. =      0.3935

F-TEST  1    MODEL 1 VS MODEL 2
RSQ FULL =        0.8795      MODEL  1
RSQ REDUCED =     0.8793      MODEL  2
DIFFERENCE =      0.0002
DFN =  1.         DFD =  186.      F-RATIO =    0.270    P = 0.6105

F-TEST  2    MODEL 2 VS MODEL 3
RSQ FULL =        0.8793      MODEL  2
RSQ REDUCED =     0.8792      MODEL  3
DIFFERENCE =      0.0001
DFN =  1.         DFD =  187.      F-RATIO =    0.171    P = 0.6833
```

Printouts for Determining Relationship Between Gains in Word Analysis Scores and Grade Level: Grades 1 and 2.

Printouts	Description
1	Frequency distribution of grade equivalent gains for both grades together.
2	Chi-square for relationship between grade and gain.

Attachment E-18
(Page 2 of 3)

```
1980 AT-HOME PROGRAM — WORD ANALYSIS GRADE EQUIVALENTS — GRADES 1-2

FREQUENCY DISTRIBUTION FOR VARIABLE # 3 (WORD ANALYSIS GAINS )

                            RELATIVE  ADJUSTED  CUMULATIVE
                 ABSOLUTE     FREQ      FREQ       FREQ
     CODE          FREQ      (PCT.)    (PCT.)     (PCT.)

   -1.0000          5.         4.6       4.6        4.6
   -0.9000          1.         0.9       0.9        5.5
   -0.8000          2.         1.8       1.8        7.3
   -0.6000          6.         5.5       5.5       12.8
   -0.5000          7.         6.4       6.4       19.3
   -0.3000          5.         4.6       4.6       23.9
   -0.2000          4.         3.7       3.7       27.5
   -0.1000          6.         5.5       5.5       33.0
    0.0             7.         6.4       6.4       39.4
    0.1000          8.         7.3       7.3       46.8
    0.2000          8.         7.3       7.3       54.1
    0.3000         12.        11.0      11.0       65.1
    0.4000          3.         2.8       2.8       67.9
    0.5000          4.         3.7       3.7       71.6
    0.6000          7.         6.4       6.4       78.0
    0.7000          9.         8.3       8.3       86.2
    0.8000          1.         0.9       0.9       87.2
    0.9000          2.         1.8       1.8       89.0
    1.1000          2.         1.8       1.8       90.8
    1.2000          2.         1.8       1.8       92.7
    1.3000          1.         0.9       0.9       93.6
    1.4000          3.         2.8       2.8       96.3
    1.6000          1.         0.9       0.9       97.2
    1.7000          1.         0.9       0.9       98.2
    2.2000          1.         0.9       0.9       99.1
    2.3000          1.         0.9       0.9      100.0

     TOTAL        109.       100.0     100.0

VALID CASES=  109
MISSING CASES=    0

MEAN=    0.2083          VARIANCE=     0.4402
STD. DEV=     0.6635     STD. ERR=     0.0636
MAXIMUM=     2.3000      MINIMUM=    -1.0000
RANGE=    4.3000
```

```
***OUTPUT FROM PROGRAM CHICHI ***

PROBLEM = HIGHLO      N =   109.

P = 0.3168 FOR CHI-SQUARE =   1.007 WITH D.F. =   1.

R TOTALS            1           2
               50.0000     59.0000

OBS FREQ            1           2

       1       36.0000     14.0000
       2       36.0000     23.0000

EXP FREQ            1           2

       1       33.0275     16.9725
       2       38.9725     20.0275

C TOTALS            1           2
               72.0000     37.0000
```

ROWS: 1 = HIGH GAINERS
         2 = LOW GAINERS

COLUMNS: 1 = GRADE 1 IN 1979-80
         2 = GRADE 2 IN 1979-80

Printouts for Determining Relationship Between Gains in Reading Total Scores and Grade Level: Grades 1-5.

Printouts	Description
1	Frequency distribution of grade equivalent gains for all grades together.
2	Chi-square for relationship between grade and gain.

```
1980 AT-HOME PROGRAM -- READING TOTAL GRADE EQUIVALENTS -- GRADES 1-5

FREQUENCY DISTRIBUTION FOR VARIABLE # 3 (READING TOTAL GAINS )

                         RELATIVE  ADJUSTED  CUMULATIVE
             ABSOLUTE      FREQ      FREQ       FREQ
   CODE        FREQ       (PCT.)    (PCT.)     (PCT.)

   -1.4         1.          0.5       0.5        0.5
   -1.0         1.          0.5       0.5        1.1
   -0.9         1.          0.5       0.5        1.6
   -0.7         2.          1.1       1.1        2.7
   -0.6         1.          0.5       0.5        3.2
   -0.5         5.          2.7       2.7        5.9
   -0.4         7.          3.8       3.8        9.7
   -0.3         9.          4.9       4.9       14.6
   -0.2         6.          3.2       3.2       17.8
   -0.1         8.          4.3       4.3       22.2
    0.0        12.          6.5       6.5       28.6
    0.1        19.         10.3      10.3       38.9
    0.2        15.          8.1       8.1       47.0
    0.3        21.         11.4      11.4       58.4
    0.4        13.          7.0       7.0       65.4
    0.5        19.         10.3      10.3       75.7
    0.6        17.          9.2       9.2       84.9
    0.7         3.          1.6       1.6       86.5
    0.8         7.          3.8       3.8       90.3
    0.9         4.          2.2       2.2       92.4
    1.0         5.          2.7       2.7       95.1
    1.2         2.          1.1       1.1       96.2
    1.3         3.          1.6       1.6       97.8
    1.4         2.          1.1       1.1       98.9
    1.5         1.          0.5       0.5       99.5
    1.9         1.          0.5       0.5      100.0

  TOTAL       185.        100.0     100.0

VALID CASES=  185
MISSING CASES=    0

MEAN=      0.2681          VARIANCE=      0.2329
STD. DEV=      0.4826      STD. ERR=      0.0355
MAXIMUM=     1.9000        MINIMUM=    -1.4000
RANGE=     4.3000
```

```
      ***OUTPUT FROM PROGRAM CHICHI ***

PROBLEM = HIGHLO        N =    185.

P = 0.1717 FOR CHI-SQUARE =     6.387 WITH D.F. =     4.

R TOTALS               1          2
                 98.0000    87.0000

OBS FREQ               1          2          3          4          5

     1           44.0000    19.0000     8.0000    12.0000    15.0000

     2           28.0000    18.0000    16.0000    14.0000    11.0000

EXP FREQ               1          2          3          4          5

     1           38.1405    19.6000    12.7135    13.7730    13.7730

     2           33.8595    17.4000    11.2865    12.2270    12.2270

C TOTALS               1          2          3          4          5
                 72.0000    37.0000    24.0000    26.0000    26.0000


ROWS:     1 = HIGH GAINERS
          2 = LOW GAINERS

COLUMNS:  1 = GRADE 1 IN 1979-80
          2 = GRADE 2 IN 1979-80
          3 = GRADE 3 IN 1979-80
          4 = GRADE 4 IN 1979-80
          5 = GRADE 5 IN 1979-80
```